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A Magazine Devoted to the Underwater World



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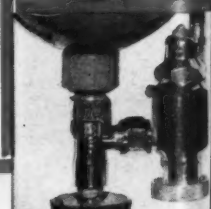
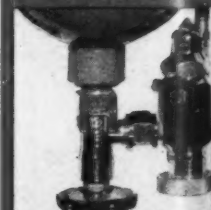
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SKIN DIVER—FEBRUARY—3



# The SKIN DIVER

P. O. Box 128  
Lynwood, California  
Telephone LOrain 7-1367

A Magazine Devoted to the Underwater World

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JIM AUXIER, Editor  
CHUCK BLAKESLEE, Adv. Mgr.-Assoc. Editor

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Register with "Skin Diver" and be included on our 1956 Roster. This Roster will be published in the magazine and copies will be sent to potential members who wish to join clubs.

Send a post card to us at

BOX 128, LYNWOOD, CALIFORNIA

## FEBRUARY COVER

TWO FRONTIERSMEN MEET — the eager skin diver rushes to the sea with all his newly acquired equipment . . . a worshipping young Davy Crockett and his dog. Perhaps today's Davy will become tomorrow's underwater explorer. In days gone by man's conquests have been new continents, vast plains, deep forests and towering mountains — now he is turning to the greatest challenge of all time, conquering the waters of the world. A lasting frontier!

— Ron Church Photo.

# editorial...

THIS ISSUE of your underwater magazine is being presented to several thousand sporting goods dealers at the mammoth dealers convention in Chicago, Illinois. Perhaps this column would be a good place to tell some of these dealers about underwater swimming accessories . . . and to remind the dealers already up to their shelves in equipment about it also.

SKIN DIVING equipment does not greatly differ from other stock items of merchandise that the dealer handles, each piece has its purpose and its price, its markup and favorite buyer. The user of underwater equipment expects the maximum of performance in what he or she buys, with some items the purchaser's life may depend upon the dealer's instructions and the quality of the product. To achieve this performance the article must take several steps . . . all in the right direction.

FIRST, A QUALITY piece of equipment is engineered and manufactured with several thoughts in mind. It is produced to be reasonably competitive on the current market, to provide the utmost in safety for the consumer and to give service. If any one point should be emphasized . . . make it safety. And Mr. Dealer, if you think some piece of equipment is unsafe for your customers . . . don't stock it. When someone asks for this particular item, tell them why you don't handle it.

SECOND IN the list of steps might be warehousing and shipping . . . even good equipment poorly handled in transit or improperly stored during a seasonal slump in an alley-way warehouse can become a piece of junk before it reaches the dealer. Think of a high pressure air cylinder that has been dropped off the rear of a truck, if the handler survives the accident he has no more concern for the tank after it has been delivered. . . . Since many of the swimming accessories are rubber products, think of a box of rubber items exposed to the detrimental rays of the sun over a long period of time. Mr. Dealer, for your protection and the safety of your customer, know the firms that handle your merchandise. You can't sell a warped baseball bat . . . or a rotten swim fin.

ANOTHER STEP is taken when the equipment becomes part of the stock and display of the Dealer. Here the prospective buyer will select an item of his choice and needs. You as a dealer should know the purpose and complete functions of the equipment. A dealer should be able to tell his buyer how to use the equipment and how not to use it. Again, he should emphasize safety in the use of the equipment. As a dealer of underwater gear you should have some practical experience in the use of the underwater equipment or at least have witnessed a very complete demonstration.

WE HAVE SAID that the swimming accessories do not greatly differ from your old line of sports gear . . . neither does the buyer, he is still Joe Public. However he has changed some, he has found a new and different world . . . a sport that includes hunting, fishing, skiing, skating and the others all wrapped into one activity — just going underwater and swimming like a fish. The equipment a dealer sells will take him into a different, beautiful, sometimes dangerous world. . . . Mr. Dealer, it is your responsibility to make sure that same equipment will bring him back again; to buy again and to play again.

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His breathing's "engineered" by the world experts!



## If it "breathes like a breeze"—it's a Northill!

When you take to the depths with a Northill Air-Lung, your breathing is scientifically "engineered" by the world's foremost experts in air and pressure controls.

Associated with Northill in The Garrett Corporation is AiResearch — the pioneer and leader in aircraft pressurizing, pneumatic controls, airflow regulators, etc. Their compressed air facilities, their laboratories and their specialized skills are unsurpassed.

In designing the Northill Air-Lung they have provided the underwater sportsman with the most advanced improvements in "SCUBA"\* construction to date. Below are a few of the outstanding advantages the Northill Air-Lung offers:

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**Rugged construction:** Every part of the Northill Air-Lung is strong and durable — no flimsy components.

\*SCUBA: Self-Contained Underwater Breathing Apparatus

**Safety features:** A foolproof regulator valve, a depth-compensated reserve air valve and a quick release harness make the Northill Air-Lung the world's safest unit.

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**Ease of maintenance:** The Air-Lung can be completely cleaned and put together again in ten minutes with only a screwdriver. No calibration is necessary.

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# The Voit Lung

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COUSTEAU-GAGNAN  
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An achievement of years of investigation and research, the Voit Lung is the most dependable, safest underwater breathing device on the market. The Voit Lung employs the proven Cousteau-Gagnan principle – the accepted standard throughout the world. This is the same type unit preferred by the experts – used for years with never a mechanical failure.

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PICTURED AT LEFT are two of the many combinations of Voit regulators, tanks and valves. All Voit lungs are filled with Certified Air and Factory-Inspected before delivery.

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SKIN DIVER—FEBRUARY—7



# Performance is the Payoff!



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Championship team has  
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The Voit name means the finest performance—coupled with lasting quality—in Swim-Fins, face plates and underwater guns. Added to these are the new Voit Lungs and Underwater Suits...the finest made. Accessories, too—weight belts, depth gauges, waterproof watch cases, snorkels, ear plugs—all backed by the best-known, most respected name in skin diving.

If you're looking for the best...look for Voit!



*America's Finest Sports Equipment by*

# VOIT®

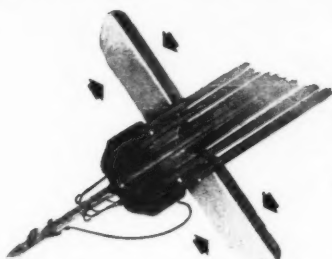
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# NEW UNDERWATER DEPENDABILITY FOR ACTION-WISE DIVERS!



## MARK VII FACE MASK

Special feather-edge design (see picture) offers greater comfort than ever before. Extremely durable because it's made of genuine Neoprene with double strength safety glass. Wide vision with a glove-like fit for all types of faces. \$4.95



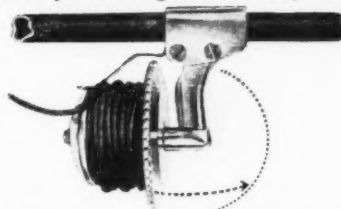
## MARK VII FOOT LOADER

Discover how much faster you can now load rubber powered guns . . . and you'll not do without the Mark VII foot loader. Can be used on almost every type of rubber powered gun . . . \$1.95



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Check this one for sure before you buy any. It's much safer, it clears exceptionally easy. The easy grip mouth piece is tops and every part including the mask strap clip is extra durable. All flexible parts are genuine Neoprene. \$1.95



## MARK VII SPEARGUN REEL

This item is catching on like wild fire . . . it works like a spinning reel when you fire. It swivels to one side for quick, very easy re-winding. Naturally it has typical Mark VII sturdiness and durability. Adaptable to every type of spear gun. . . . \$5.95

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## MARK VII CO2 SPEARGUN

New power and accuracy to make your spearfishing extra exciting. Each CO2 cartridge holds about 40 shots and you can change cartridges quickly underwater. Gun comes equipped with standard line clips (A), the spin type reel (B) is extra. You'll like the handling, balance, & action of this gun. . . \$47.50

**See These Great New Items at Your Dealers TODAY!**

For your Dealer's address, write:

# MARK VII

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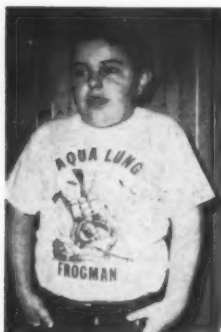
# NEW PRODUCTS



**"Aqua-Cam" Underwater Camera.** Something new on the market is this underwater camera that incorporates camera and water proof housing into one unit. Aqua-Cam was designed for all divers, both those with underwater photography experience and those without, the controls are simple yet adequate. Complete unit sells for \$32.50 and is made of cast aluminum with air valve for pressurizing. Designed for the 620 film size and has a lens speed of approximately f:12 with a 1/50 second shutter. 2 1/4"x3 1/4" negative.

The film chosen for underwater work with the Aqua-Cam will depend on the depth at which the pictures are to be taken. Recommended films are Ansco "All weather film" or Eastman Super XX for shallow work and Eastman Tri X for deeper work. A little experience with this unit will bring gratifying results.

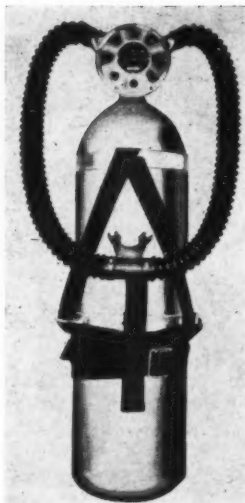
This apparatus differs from the usual underwater camera in that it is all one unit, not a camera and a case . . . therefore is very rugged and can be subjected to the unusual conditions encountered by all underwater swimmers.



**Frogman T-Shirts . . . 4 colored emblem on heavy weight quality White T-Shirt, Adult sizes, S, M, L, \$1.25 - Children's sizes, 4-12, \$1.00 - From Richards, New York, N. Y.**

Swimaster, Inc. of Huntington Park, California, producer of underwater skin diving and surface swimming equipment, has been purchased by the Pacific Moulded Products Co. of 905 East 59th Street, Los Angeles. All Swimaster products involving the use of molded rubber will be fabricated in the Pacific Moulded Products plant, with assembly, packaging, and shipping departments concentrated in expanded facilities which are nearing completion.

Marketing operations for items such as masks, fins, goggles, snorkels, spearguns, and related equipment are to be conducted by the firm's newly-formed Swimaster Division under the supervision of Charles D. Thurmond, with particular emphasis on improved distribution throughout the nation. This includes prompt shipments and full cooperation to jobbers and dealers on all matters pertaining to the Swimaster line of products.

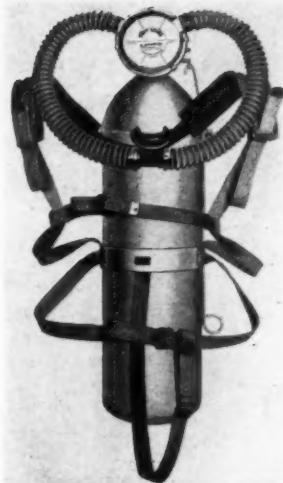


A new and sensational Underwater Breathing Unit has recently been announced by Dacor Corporation of Evanston, Illinois. It comprises the world's first and only double diaphragm, 2-stage regulator. The double diaphragm provides double safety as there are two diaphragms separating the water from the air chamber and the unit continues to function with only one of the diaphragms in operation.

The 2-stage feature reduces pressure twice and assures easy breathing regardless of tank pressure.

Also included with this diving lung is a newly designed mouthpiece that features a lower "Off Set" body to prevent it from riding up and displacing the face mask and also to act as a water saliva trap. Its non return valves, fully incased in tough nylon housings prevent water from entering the intake hose and eliminates breathing of exhaled air.

Price for complete unit \$149.50.



Following three years of research and testing by its engineers, the finest and most efficient underwater breathing lung available has been added to its line of swimming equipment, the W. J. Voit Rubber Corp. revealed in a recent announcement.

During the three year experimental period, Voit engineers tested every available underwater breathing device, always arriving at the same conclusion—the Cousteau-Gagnan process was the best. And that's the lung Voit selected. This is an opinion shared by the United States Navy, which employs the Cousteau-Gagnan lung for use by members of its underwater demolition teams.

The Cousteau-Gagnan lung has been proven through more than ten years use all over the world and not one instance of mechanical failure has ever been recorded. The Voit lung offers a choice of two different types of regulators and two different types of tanks. Available are both the single stage and two stage regulators and both positive and constant reserve tanks. Additionally, each type of tank may be purchased as either a single or a double unit. Eight different combinations are available. Single-stage, positive reserve, tank and harness retails at \$130.

Each Voit Lung is accompanied by an instruction book which contains complete information on the equipment and its uses. Voit's entrance into the Lung field comes as a boon to sportsmen desiring rapid and efficient delivery and service. Voit maintains the largest network of nationwide outlets in the field, thus assuring the distributor and purchaser of nearby, quick service.

Healthways takes a far-reaching step into the underwater photography field by becoming the exclusive manufacturer and distributor for the famous Mako line of underwater photography equipment, designed and developed by Jordan Klein. The first camera to go into production is the Mako Shark, recently advertised in The Skin Diver magazine. With mass production methods it is estimated that the new retail price, to be announced shortly will be under \$20.00.



# Controversial Cover Picture Explained

(Editor's note: So many people have asked for an explanation of the picture that was on the cover of the October issue of *Skin Diver*. The photograph, taken by Jordan Klein, president of Underwater Sports, Inc., Miami, Fla. shows Dolly Friel holding a camera without a case underwater. "Was the picture really taken underwater? Was the camera ruined?" are the sort of questions we have been getting. And so we have asked Klein for an explanation.)

"The picture on the October *Skin Diver* cover was taken underwater in the Gulf Stream off the coast of Miami in an area some 600 feet deep, where, by the way, sharks kept visiting the scene. I selected this area because the reef waters happened to be dirty that day. A prolonged northwester was causing the trouble.

"As for the camera, it was not ruined. It is a camera shell we use for designing at the Mako shop. The camera was just used as a prop for a picture that was intended to be humorous—labeled "The Beginner". But, in error, the caption was omitted. In fact, the picture was one of a series. The second, pictured here, shows our beginner, now more experienced in the use of an underwater housing. She's arguing with her husband, Rick Friel, over who will use the camera case next.

"And here is a bit of extra information regarding the filming. Mako flash was used for both pictures. This supplemental lighting provides an interesting effect. It is almost possible to read the engraving on the camera lens. However, care must be taken not to place the light more than 10 or 12 feet from the subject. If the distance is greater the filterable effects of the water and plankton destroys the illumination.

"When using flash close to the camera, it is necessary to expose for the light of the flash. The flash is treated as the main source of light. Then, the background will be dark grey to black, as it is in these pictures, particularly, the spade fish. The foreground should not be a light color, like sand, since this section of the picture is overexposed and will print white."

We believe this breakdown of how the picture was made will answer most of the questions asked regarding the picture, however one more answer is necessary. A reader in New Jersey wondered when and why the manufacturer of the lung had started placing the regulator on the left side of the mask. . . it has always been and still is on the right side. Explanation: the original picture was "floppe" or reversed for the purpose of having the subject looking into the magazine instead of to the fold or bindery edge.



October cover picture . . . Is that girl really underwater?



Still underwater, but no bubbles . . . perhaps they hold their breath when the picture is being taken.



(Left) Distance shot of Rick still gives details of face. (Right) Spade fish is clear and sharp with flash, however all the background is bland with no definition.



"YOUNG WAVES, only recently shaped by the wind, have a steep, peaked shape even well out at sea. From far out on the horizon you can see them forming whitecaps as they come in; bits of foam are spilling down their fronts and boiling and bubbling over the advancing face, and the final breaking of the wave is a prolonged and deliberate process. But if a wave, on coming into the surf zone, rears high as though gathering all its strength for the final act of its life, if the crest forms all along its advancing front and then begins to curl forward, if the whole mass of water plunges suddenly with a booming roar into its trough — then you may take it that these waves are visitors from some very distant part of the ocean, that they have traveled long and far before their final dissolution at your feet." — From *The Sea Around Us* — By Rachel L. Carson.

## BOOK REVIEW

By R. K. AWTRY

### MODERN SPEARFISHING

By Vane Ivanovic

Since at least as far back as *Ye Compleat Angler* by Izaak Walton there have been books and books written on how to catch fish with rod and reel. Now at last we have an equivalent book on spearfishing. There have been quite a few books on underwater adventures but *Modern Spearfishing* is a book which comes right out and says, "Here is how to do it."

Mr. Ivanovic is a man who writes with authority. In addition to his native Mediterranean, he has spearfished off the coasts of Ceylon, Singapore, Bali, Hong Kong, Japan, the Hawaiian Islands, California, Mexico, the Bahamas and Bermuda. He has dived with many of the world's best known spearfishers: Rodney Jonklaas in Ceylon, Jack Ackerman in Hawaii, and "Bottom Scratcher" Jack

Prodanovich of California, to mention but a few of the many who are familiar to all *Skin Diver* readers.

This book is admittedly intended for the beginner and starts off with the very basic problem of selecting your diving waters. From there he goes on to discuss the different types of shore lines and how one can judge the characteristics of the sea bottom by studying the adjacent shore line.

After getting us lined up with a good diving site the author then launches into a detailed but very interesting and informative discussion of the equipment we need. In writing about the various types of spear guns he tells how some of the better known divers use their particular guns. Jack Ackerman, for example, prefers the simple Hawaiian sling and he will swim around an entire morning holding it cocked with his right thumb. Mr. Ivanovic surmises that he must now have one of the strongest right thumbs in the world. In the section on rubber suits he tells how discouraging it is to dress like Sir Edmund Hillary for a cold water swim while those two California veterans, Frank Rodecker and

Jack Prodanovich, accompany him wearing only trunks and seeming to suffer far less.

The chapter on "The Techniques of Spearfishing" I found to be one of the best because, besides explaining diving techniques in general, the author takes up the special tactics of some of the spearfishing experts of various localities.

The author has a chapter on underwater breathing equipment, without which the book would not be complete. In the next chapter there is a section dealing with some of the enemies the diver may encounter: sharks, barracuda, morays, and mothers and wives who view the sport with "perpetual disapprobation."

The collection of black-and-white underwater photographs is one of the best I have seen. In addition there are above water shots of some of the experts referred to in the text.

As stated previously, the author has intended this book for those about to take up the sport. However, all spearfishers will find it interesting reading and will undoubtedly come across some new angles to the sport. ➤

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GUY GILPATRIC

**ABOUT GUY GILPATRIC.** *Author of: Scotch and Water; Half-Seas Over; Three Sheets in the Wind; Mr. Glencannon; French Summer; Brownstone Front; The Glencannon Omnibus; and The Compleat Goggler.*

Creator of the inimitable "Mister Glencannon," Guy Gilpatric was a New Yorker by birth and a professional aviator by experience. In 1912, three months after receiving his pilot's license, he established a passenger altitude record which held for several years. He saw two years' service in France and later entered the advertising business. His career in one of the best known agencies of that field was meteoric. But one day Mr. Gilpatric decided there was more to be had from life than a vice presidency and a big salary could offer.

He packed up and moved to the French Riviera and commenced writing stories about a disreputable sea-going Scotch engineer. The engineer became astoundingly successful and then Mr. Gilpatric worked steadily and hard at his writing. He devoted the rest of his time to three hobbies—fencing, at which he was an expert, pistol shooting and spearing fish. During his latter few years, however, the fish almost completely eclipsed the human and cardboard targets, and you have only to read his underwater book, **THE COMPLEAT GOGGLER**, to understand why. This famous novel starts in the March issue of **SKIN DIVER**.

**DODD, MEAD and COMPANY, Publishers.**

# The Compleat Goggler

**By GUY GILPATRIC**

*Author of the Glencannon Omnibus, French Summer, etc. — 1934.*

*(To be published in four series beginning with the March issue of The SKIN DIVER Magazine.)*

Here is the first book ever written about Goggle Fishing, the fascinating new sport which combines hunting, fishing and submarine sightseeing, and which is taking the beaches of Europe and the United States by storm. Mr. Gilpatric has perfected a method of stalking fish, of diving after them and actually spearing them underwater. In the book he tells exactly how it is done and gives full details, drawings, and photographs of the spears and goggles which are the only equipment necessary.

In the amusing vein which has endeared him and his inimitable Mr. Glencannon to millions of readers, he de-

scribes his tussles with an octopus and other sizable under-sea beasts; he discusses submarine guns and catapults, and describes various types of simple diving equipment; he gives you hints on swimming, diving and spearing fish (as well as cooking and eating them), based on his own long experience in the Mediterranean and on hundreds of letters he has received from goggle fishing enthusiasts in all parts of the world. Illustrated with dozens of unique photographs, it is not only a complete treatise on a coming sport craze, but an intensely interesting and amusing book besides. Even if you can't swim a stroke, even if you live in the middle of a desert and hate water like a cat—dive into **The Compleat Goggler** and you'll come up with a thrill and laugh!

**DODD, MEAD & COMPANY, Publishers.**

*Starts in the March issue of "Skin Diver"*



## Hyperventilation . . .

# Some Observations on Preliminary Deep Breathing

By FAY R. FEILD

In recent skin diving articles there have been several references to the techniques of preliminary deep breathing. All have stressed the greater breath holding time ability that results. None have pointed out the greater dangers involved.

It is commonly accepted that CO<sub>2</sub> buildup during a dive causes a powerful urge to breathe. This urge is so powerful that it is the main limiting factor in normal breath holding. This is well borne out by the fact that the length of time one can hold his breath varies widely with the size and type of audience, the keenness of competitive feeling, or, generally speaking, the amount of motivation involved. It is probably pretty safe to assume that the time of a dive (no special training or preliminary deep breathing) is governed by the urge to breathe as modified by the will to stay submerged.

The effects of CO<sub>2</sub> buildup are felt strongly long before it is dangerous and before oxygen level is dangerously low. Thus, when such a "normal" dive reaches the time when the diver feels compelled to surface he probably has been under less than half his maximum capability and considerable time will elapse before weakness or unconsciousness occurs. This, I believe, to be the one safety factor that has had the most to do with the remarkably low number of drownings of skin divers resulting



from staying down too long. Later I will contrast this safety factor with that which exists after preliminary deep breathing or "other techniques" to stretch dives are used.

Several things indicate that much of the breath holding capability gained by

preliminary deep breathing is due to a lessening of the urge to breathe which in turn lessens fear, tenseness and chest spasms. The more inexperienced the diver, the more time he gains in percentage by preliminary deep breathing. All evidence I have observed indicates that, disregarding preliminary deep breathing, the gains in submergence time achieved through practice and experience are due mostly to emotional and physical control improvement rather than physical changes or conditioning of the body. For example, before I knew of preliminary deep breathing, I practiced breath control until I was capable of holding my breath until near loss of consciousness without muscular tenseness, chest spasms, or fear. My breath holding time prior to this was about one minute; after training three minutes. My best time with preliminary deep breathing is a little over four minutes. Note that the percentage gain is much less than that which commonly results from preliminary deep breathing.

The typical diver without preliminary deep breathing experiences discomfort which cannot be ignored before his dive is half over and usually experiences extreme discomfort long before he becomes too weak to surface. He has unmistakable warning that his physical limitations are being reached before he loses the strength to surface. With full preliminary deep breathing, a typical diver may experience little or no discomfort

# OUR WET WORLD by JOE GORNALL

## A SLASHING MARAUDER

**THE SAWFISH**  
HIS SLASHING  
BEAK HAS  
FROM 25-29  
TEETH THAT  
RIP AND  
TEAR HIS  
HELPLESS  
PREY.

TAKEN OFF THE ISLAND OF  
ELEUTHERA, BRITISH WEST  
INDIES BY THE UNDERWATER  
MISSILES. THIS 8-FOOTER  
WAS TAKEN ON A HAND  
SPEAR AFTER HIS FINS  
AND TAIL HAD BEEN CUT  
BY A MEMBER'S BLADE.

### BRISTOL, ENGLAND

PETER BOULTON, HOLDS  
HIS 16½ lb. MONK FISH. SOME-  
-TIMES CALLED AN ANGEL FISH,  
THIS SPECIMEN IS UNUSUALLY  
LARGE FOR BRITISH WATERS.

### LUTHER BOLSTAD - SKIN DIVER

SINCE POLIO STRUCK IN 1949, LUTHER, OF THE  
MINNESOTA SKIN DIVERS, HAS NOT HAD THE USE  
OF HIS LEGS. HE USES WEBBED MITTENS FOR  
PROPELLSION AND CAN DIVE TO 50 FT. WITH EASE.

fort after he has been submerged three-fourths or more of his maximum capability. One who has practiced sufficiently to remain fully relaxed with no fear or chest spasms can, with preliminary deep breathing, hold his breath until he passes out yet experience no symptoms at the end of the dive but a vagueness of thought and a warm dull sensation in his head and body, which may be preceded or accompanied by vertigo.

Regardless of the whys or hows, it seems unquestionable that preliminary deep breathing increases the time a diver can stay submerged without acute physical discomfort far more than it increases the time the diver can stay submerged without losing consciousness! The safety implications are obvious but permit me to cite a couple of practical applications. Assume a diver who had not practiced preliminary deep breathing could dive to 40-feet and return with but little margin. He tries preliminary deep breathing on shore and finds it increases his ability to hold his breath considerably. He tries it in deep water and continues down until he feels the same discomfort he did without preliminary deep breathing. He is now probably not at the half point of his capability but at the three-quarter point or more. He'll never make it back unaided. Or let's

assume he is a little more careful and increases his depth gradually until he finds he can dive to 75-feet with a fair margin. He makes a dive to 75-feet. There he is startled by something and feels a sudden stab of fear. He recovers his composure immediately and starts for the surface . . . but the damage is done. The fear caused adrenalin to be released, which speeds up his bodily functions and rapidly depletes his slim oxygen supply. Since this action now has a much longer time to take effect, the effect becomes much more important. He'll never make it unaided. Remember, when diving deep, you are working on so narrow and fickle a margin that a single flash of fear, apprehension, or simply being startled can wipe the margin out. Let me illustrate how drastic this can be. I can and have surfaced wearing a lung from over 150 feet without a single inhalation and was only slightly uncomfortable on reaching the surface. (Ed. note: The ascent as described above should be made slowly and relaxed, the diver never passing his smallest bubble . . . liberal continuous exhalation must be made during the entire ascent. *Never hold your breath when ascending from any depth.*) I once received a severe, very brief stab of fear at about 30 feet from the surface

in a cave, just after running out of air. I came closer to not making it than I care to admit. Even so little a thing as suddenly finding you've not enough air to equalize pressure on your mask at a depth to which you are accustomed to diving, can cause enough apprehension to wipe out your margin of safety. Most divers will readily agree they cannot dive as deep nor stay submerged as long in murky water as in clear. Apparently a tension or fear even below the level of awareness shortens diving capabilities by a considerable amount.

I have found that, using preliminary deep breathing, if I stretched a dive too long I fairly consistently experience vertigo. The more work done during the dive, the stronger the vertigo and the sooner it comes. On an idle dive the vertigo is very mild and occurs just a few seconds before loss of consciousness would occur. I have been told that flight surgeons have found that vertigo is more likely when oxygen levels in the body are low and that there is a considerable range of susceptibility in different people. This vertigo experienced at the end of a long dive is accompanied by a reduction in awareness such that you are likely not to know that anything is wrong. Although I have only experi-

(Continued on Page 34)



MEMBERS of the joint team of underwater explorers and speleologists preparing for their exploration at Jenolan Caves.

# CAVE

# DIVING

"Of all the gambles, this is the most perilous and foolhardy, for one's life hangs upon a thread in these narrow tubes of rocks filled or almost filled with water."

Norman Casteret,  
one of the greatest of French cave explorers.

The tiny cavern was filled with a booming noise as the men, their flippers thrashing, fought their way upstream against the current. . . .

The scene . . . the Right Imperial Cave in the Jenalon system, 60 miles west of Sydney, Australia; Saturday, the 2nd of October of 1954. The mission . . . exploration of a new cave, 100 to 150 yards long, about 50 feet wide and the roof up to 70 feet high. The results . . . the full importance is not yet known but it seems to bear out the theory that there may be whole new cave systems that will be of great interest to tourists.

The four young explorers garbed in dry suits and other frogman gear, consisted of: Michael Calluaud, an electrical engineer and Frenchman, two years in Australia; and Keith White, an engineer with the railways. Both are members of the Undersea Explorers Club. The other two were Owen Llewellyn, a taxi driver and Russell Kippax, 23, a laboratory attendant at the Teachers' College. Both are members of the Speleological Society of Sydney.

The expedition was one of the most ambitious of the kind undertaken in Australia and certainly the best equipped. Each man carried his own breathing equipment, snorkel, strong lights and even a telephone.

The Right Imperial Cave is a great cavern in the Jenalon system where an underground river mysteriously appears. The

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discovery supports the theory of the Sydney Speleological Society that caverns, with siphons in between, run along the line of the underground river which disappears in the Mammoth Cave and reappears in the Right Imperial Cave, three-quarters of a mile away.

Members of the Speleological Society constructed a wooden platform over the underground river at the end of the Right Imperial Cave about 300 feet underground.

The river appeared to come from a siphon following a course like a capital U. Where the one leg led to was then unknown. An underwater telephone system for use by the divers was rigged on the platform, and a tape recorder for recording the telephone conversations. Electrical signalling equipment was produced which would enable contact to be maintained between the surface party and the leader of the swimming team, and semi-buoyant floats constructed for playing out electric cable as the swimming team traveled to new depths under water. Emergency techniques were devised to deal with any accident during the swim through it.

The water was crystal clear and the cavern glowed with a wierd green light as the divers switched on their underwater lights; then as the divers went in a two-man relay team the water became clouded with a black silt which lay on the river floor.

The first upset came when leading man Russel Kippax found that the float for the cable spool had become water-heavy, and he watched with horror as it dropped and ploughed into the great beds of silt which clouded behind him. This blacked out the sealed-beam head-lamps of the following party and blinded them. In the confusion Michael Callaud became separated from the others, but fortunately was able to make his way back to the starting entrance.

In about one-half hour the first diver made it through. It is interesting to note the account of Keith White: "I got a terrific feeling when I stood up in this great cave and turned my light around. I thought to myself 'No man has ever been here before'.

"We were standing in water about a foot deep. It trickled over the floor of the cave. All around there were fallen rocks and there was a sign of a recent fall at one end of the cave. We were very careful not to touch anything for fear of dislodging other rocks. Without our lights the cave was dark—the blackest darkness I've ever been in.

"The roof of the cave sloped up to 70 feet high. There were beautiful lights. Stalactites stretched down from the roof. There was a continual drip, drip, drip of water from the roof. It's hard to judge distance underground but I'd say the cave



**UNDERWATER LIGHTS, telephones, etc., all of the equipment for this underwater underground trek was prepared weeks in advance. — Photos courtesy Sydney Morning Herald.**

is a hundred or 150 yards long. It took us a quarter of an hour to walk from one end of the cave to the other.

"This is my first exercise with the spelios but it's something I'll never forget. If this cave was near Sydney I'd be exploring it every week-end.

"There are so many possibilities. There is a large hole at the top of the roof which could lead into another large cave system."

The president of the Speleological Society, Mr. Ben Nurse, said: "We are delighted with the discovery.

"It is a step towards proving our theory that the Imperial Cave is linked to the Mammoth Cave by a series of smaller caves connected by siphons.

(Continued on Page 29)

**THE SECOND** assault group keeps in touch with the advance party via telephone. Knowledge of underwater swimming assured success of the operation.

**THE JOURNEY** into the siphon beneath a ceiling of stalactites. A generous supply of rope was carried by each member.



# Treasures

## of the mind

By KENNETH FENWICK

31 years of research and experience on old ships and naval architecture have perhaps, made Mr. Fenwick the most renowned and leading British authority of sub-surface treasure and old wrecks.

**T**REASURE is a word that appeals to those romantic instincts common to all, so it is not surprising that stories of golden cargoes gather round every ship which went down before any of us were born. Most of the cargoes are imaginary, but some of them exist — or did exist.

That they did is important, for nothing is more certain than that there would be attempts made to save the cargoes of treasure ships in accessible positions as soon as possible after their loss. The art of diving is extremely ancient, and thousands of years ago there were professional divers who, like the native pearl divers of today, could hold their breath long enough to do snatches of work on the seabed. In Greek and Roman times leather air-bags, and air-bells upon legs which were lowered to the bottom so that the divers could duck their heads into them and refill their lungs several times before the air was expended, enabled divers to do real work — and even to fight battles — on the bottom.

By the 16th century diving bells were in use, and divers could work near these in helmets provided with compressed air from the bells. As most stories of Spanish treasure galleons date from the 16th and 17th centuries, it will be seen that equipment then existed with which quite elaborate salvage operations were possible providing the wrecks were in sheltered positions and fairly shallow water.

We may be sure salvage would be attempted if a wreck was known to have enough treasure on board to make the effort worth while — Archibald Miller's work in 1683 on the Spanish Armada wreck at Tobermory is well known, and as the galleon was not yet buried in the silt which now makes salvage so difficult and costly — as the Duke of Argyll is discovering — Miller's work with a primitive diving bell has been the most productive.

There are few reliable stories of treasure being salvaged from very old wrecks, for those who are successful prefer not to announce the fact as, however long treasure may have lain on the seabed someone will come forward to claim it! Should some fortunate skin diver ever find a golden cargo, we may be sure the government claiming the territorial waters in which it was found would demand a share, and the customs officers at whichever port he tried to land it would probably seize him upon some charge of illegally importing gold!

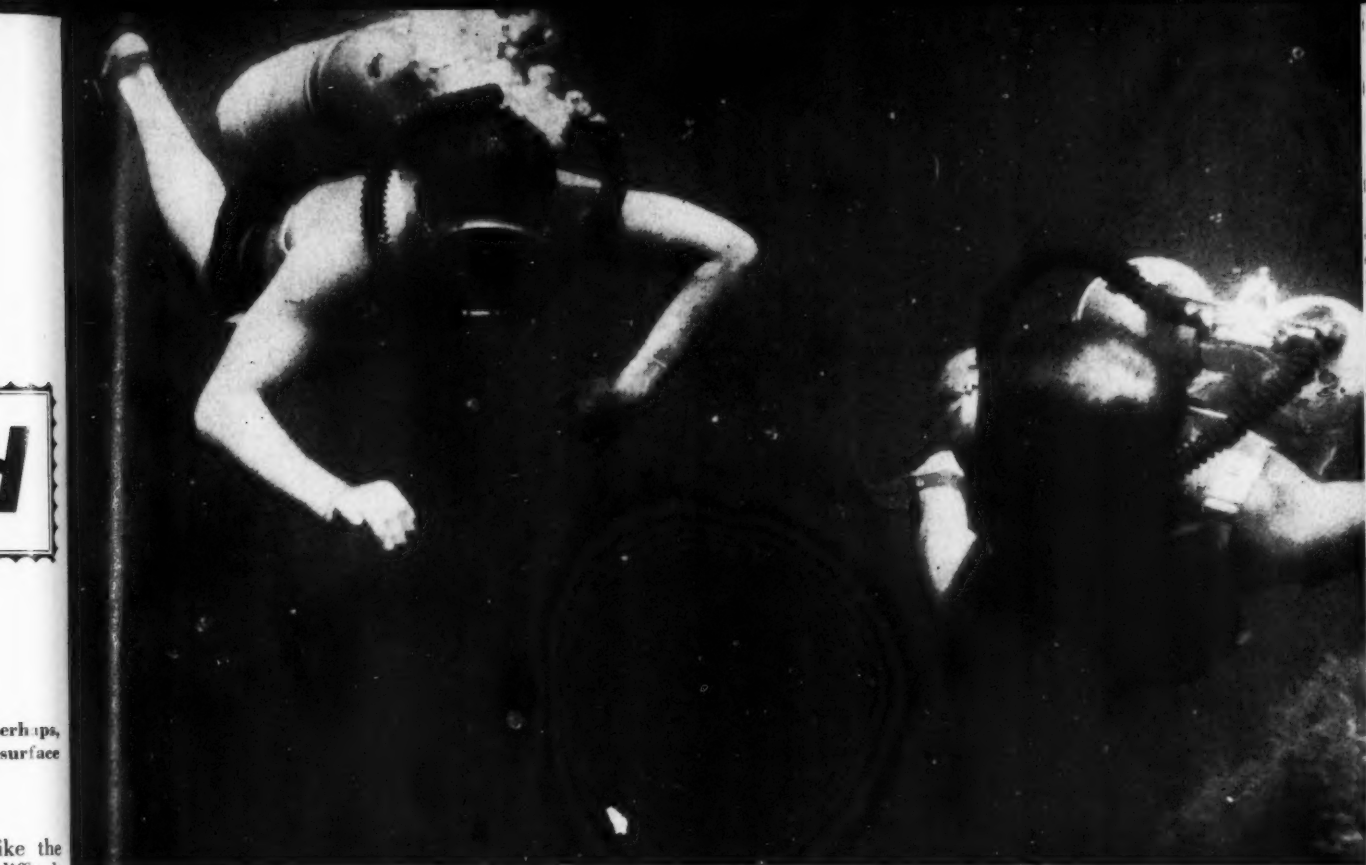
This is assuming the treasure wreck was so old that there was no owner known and no existing insurance company had paid out on the gold at the time of its loss. In any country with just laws these problems would be straightened out in time, but proceedings would probably be tedious and very profitable for the lawyers who argued the case! Therefore information about genuine treasure salvage — apart from

official and modern instances like the *Laurentic* and the *Egypt* — is difficult to obtain.

Sightseers are a flattering, but troublesome, problem for divers who find old wrecks. A former R. A. F. officer, Mr. Bob Lewis, who is a keen lung diver, and some associates, in July 1955 found the remains of the British frigate *Anson*, which was wrecked in Mount's Bay, Cornwall, on December 29th, 1807. This was mentioned in some newspapers and for weeks afterwards he could hardly get near the wreck for the crowds of people on summer vacation who came to see what they could of his operations, and a good deal of this interest was due to rumors of treasure.

At New Year, 1807, the *Anson* had been at the capture of Curacao, and one story says she had on board £1,000,000-worth of booty taken there, while the other claims that she was carrying the pay chest of the Atlantic Fleet. Alas! neither story will stand examination, for when she first came back from the West Indies she was docked at Plymouth for repairs and any treasure she brought would be landed there. Nor is the pay chest story much more likely, for ships' crews were not then paid weekly, but at the end of a voyage or commission — so there would be no pay chest going to the Atlantic Fleet in the *Anson* or any other ship. She was, in fact, at the time of her loss on an ordinary routine

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**SELF CONTAINED** Underwater Breathing Apparatus (SCUBA) enables mankind to swim and react as a fish underwater. Above we find Bob Brown and Alex Scheffo from the USS Worcester gliding through the water in an attempt to find various forms of sea life or "Treasures of the Mind." — U. S. Navy Photo.

war-patrol in the approaches to the English Channel.

The finders know this — although newspapers still write glowingly of the "Million Pound Wreck" — but they intend to remove as much sand from the wreck as possible and to examine the remains as a matter of interest. So far, they have found a score of cannon, piles of round-shot, a 30-foot bronze bar, an anchor, and other oddments, but she broke up in heavy seas at the time of her loss, so little of the hull will remain in the sand but the keel and lower planking.

But she will provide valuable experience before going on to the more valuable wrecks near her which did contain treasure at the time of their loss. In 1589 a Spanish carrack of 300 or 400 tons (about twice that in modern marine measurement) was captured off the Azores by English privateers and when she was being brought into Plymouth she was wrecked in Mount's Bay with the loss of all on board save five or six men. She had a very rich cargo as well as "some silver and plate" and her captain had "put an adventure into this shippe five and twenty thousand ducats," but it is also on record that immediately after her wreck "some of her goods were saved."

Also in Mount's Bay is a Spanish or Portuguese ship of 1750 with a reputed 17,000,000 Spanish dollars on board. She struck under the cliffs directly below St. Winwalloe Church and in the course of time broke up, her treasure falling into a cavity in the rocks. From time to time it is said buckets full of coins have been dredged up in exceptionally calm weather, but the place is extremely dangerous for both boats and divers. Because of this, attempts were made in 1860 and 1907 to tunnel out from the shore under the rocks and get the treasure that way. In both cases the miners were washed out and most of the dollars may still be there, although many must by this time have washed away beyond recovery as dollars are sometimes found on the beach after storms.

Yet another wreck in this bay is the troopship *Susan and Rebecca* which had on board 180 men of the 9th Light Dragoons returning from South America and — according to the story — part of the plunder of Buenos Ayres. She struck on November 4th, 1807, and 28 soldiers were drowned, it is said because they filled their pockets and helmets with doubloons. A hundred years after her loss large golden doubloons, square in shape, were often washed up — but there has been no report of this wreck for

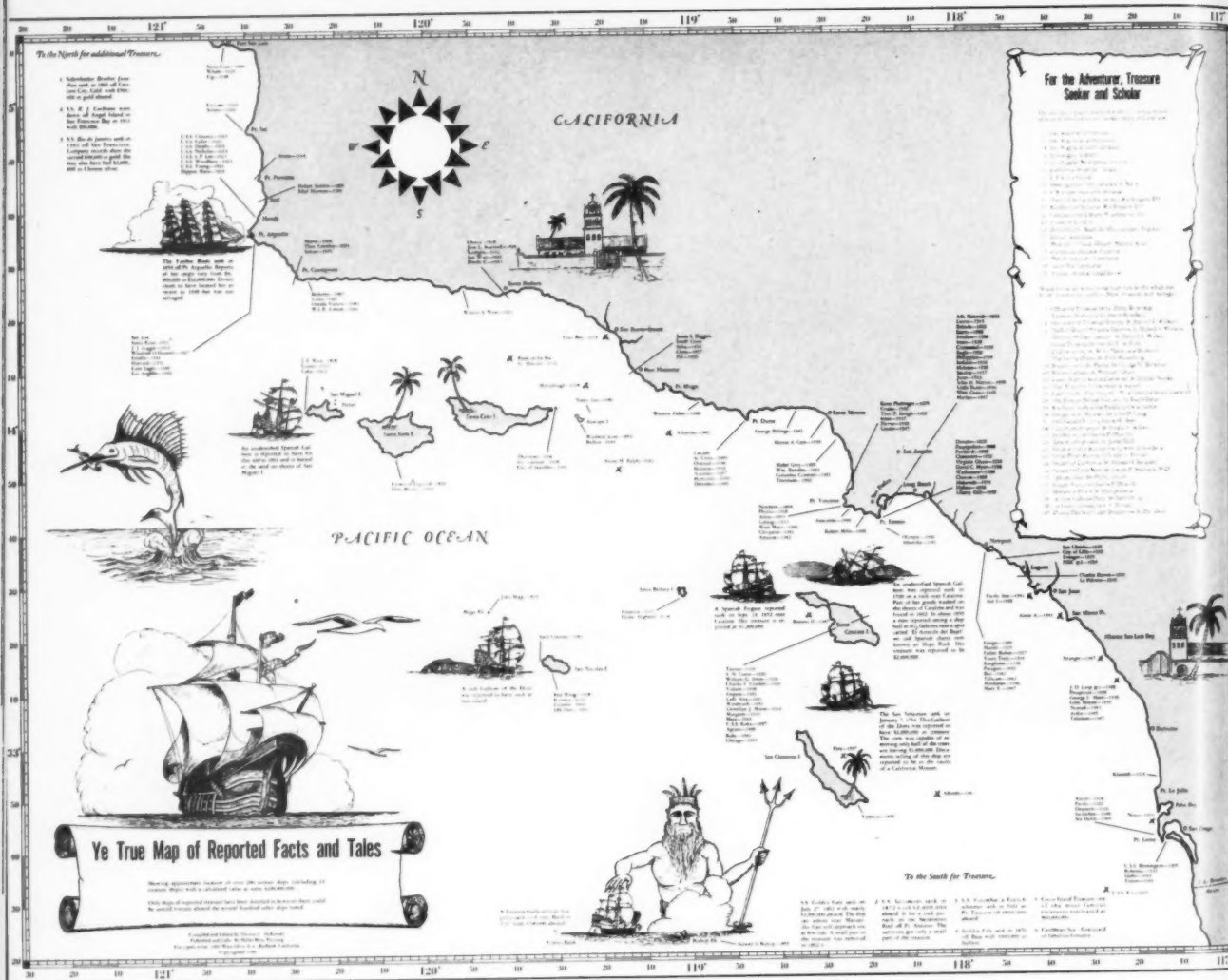
many years past, so she is probably now deeply buried in sand or possibly broke up and scattered her contents early in this century, when the doubloons came ashore. We shall know when the finders of the *Anson* extend their operations to the area where she was wrecked.

Members of the British Sub-Aqua Club have in the summers of 1954 and 1955 been seeking the wreck of the *Santa Cruz* which they believe went down in Cardigan Bay, Wales, with vast treasure on board, variously estimated at anything from £750,000 to £10,000,000. In 1954 the Merseyside Branch thought the wreck had been located on a reef but could not prove it, and in June, 1955, the Midlands Branch chartered a trawler with the intention of trying their luck also, but up to the time of writing neither branch had been successful in establishing the identity of the wreck or in raising anything resembling treasure.

Not far from the *Santa Cruz* should lie the remains of the *Royal Charter*, wrecked in 1859 when returning from Australia with successful gold-seekers and about £350,000 in gold. Shortly after the wreck the greater part was salvaged, but £50,000 was not accounted

(Continued on Page 31)





# YE MAP OF REPORTED FACTS

By THOMAS MCKINNEY



This is a guide to an estimated \$200,000,000 in sunken treasure in the waters of Southern California. There are over 200 sunken ships noted and many have fabulous treasure still in their hulls. The map also lists 20 sources of information and a list of 40 books on sunken ships, pirates, treasure and ship-recovery.

Since the beginning of recorded history, man has pressed his pen to paper to unfold tales of fabulous fortunes in buried treasure. Directions to the Pharaohs' fortunes of Egypt were chiseled in the stones of the pyramids; Indian hieroglyphics could guide one to a secret hiding place; and many a pirate's cache of untold value was known only by the markings on an old map. As more ships plied the waters of the New World, and piracy and the sinking of ships laden with gold and gems became more common, the greatest treasure of all time

began accumulating on the bottoms of the oceans.

When you have finished this tale we hope you will cast your lot with the adventurers of our day and be on your way to discovering part of the \$200,000,000—that is two hundred million dollars—in sunken treasure off the shores of Southern California.

A few centuries ago men would pursue lost treasure by first finding, buying or stealing a treasure map or ship's log or some document of dubious value. In this modern day, however, little credence is given to the so called "treasure map" which some nondescript character may claim he possesses. Today if one catches the fever to look for treasure or has the urge for the romance of discovery, or just wants to get rich quick, he takes a more logical and scientific method to pursue his endeavor.

At no time in history has man had more scientific equipment at his disposal to explore the unknown and to unravel the mysteries of the past. With the advent of radar, Geiger-counters, sonar and numerous electronic devices, the locating of long sunken ships can take on a more scientific form of exploration. The recent progress in underwater equipment for the skin diver and professional diver has made it possible for many more people to enjoy exploring the ocean depths.

Such items as the underwater camera and television have increased the accuracy with which one can record and analyze one's findings among the rocks and caverns beneath the surface of the ocean. Modern salvage methods and equipment such as the dredge, suction pump, diving bell, underwater tools, torches and lighting systems have increased the probability of recovery once a sunken ship has been located. With such progress it is no wonder that interest in searching for lost treasure has been greatly renewed.

Where do you begin your search for a sunken ship? In research. If you are a skin diver, yachtsman, or aquatic enthusiast, you have probably often wondered what to do during some of those long winter months. Needless to say those months are ideal for your research so that you will be ready for the "real search" in the summer.

Although there are Seven Seas, all with their own catch of ships, we have concerned ourselves only with the waters off Southern California. Here we find that man and nature have certainly supplied us with a bountiful quarry of over 200 large ships.

To begin your research you may go to the public library, museums, old mis-



**SALLY MOEHLE, BEVERLY PAGE and JULIE VETTER** prepare to "go under" at the Long Beach, Calif. Y.M.C.A. pool. Underwater classes are held here under the direction and supervision of Instructor Rory Page.

sions, marine insurance companies, or various government offices. You may also write to the Library of Congress, the Smithsonian Institute, foreign governments or shipping firms. However, a great deal of your time may be saved as much of this preliminary research has been completed and is available for your benefit on the printed map which notes the general location of over 200 sunken ships. In order to facilitate your research further, it also has a suggested list of over 20 different places and 40 books from which you may obtain additional information.

As you spend your time writing to other countries around the world, searching through books and exchanging notes with other people, you will find that one or two ships will interest you more than the rest. Do not forget in your quest for gold that there is great value in antiques and museum pieces which may also be uncovered.

While you are accumulating infor-

mation on ships, you will also want to investigate the latest in equipment and scientific devices which will assist you on your expeditions. The type of equipment that would best aid you in your search, would be dependent upon the circumstances surrounding your particular problem, and a matter of personal preference.

If you should be successful in your quest, fame and fortune are assured. And even though you may not find that elusive pot of gold, you will have enriched your life with knowledge and spent many wonderful days of exploration aboard ship, at the shore, on an island and under the water.

Many people go through life sitting and waiting for their ship to come in, but we hope you are among those with a spark of imagination and a zest for living. To those adventurous souls who embark on what may be a thrilling and profitable adventure, we wish you "Happy Hunting".

# An American Skin Diver In France

By STAN WATERMAN



The seventy-two foot motor sailor, "Little Vigilant", was going to take us all the way from Bremen, Germany, to the coral reefs of the Red Sea. The first part of the trip, which was almost completed, extended from Bremen to Marseilles, entirely by the canal and river system of Europe, through Germany and France.

We entered France at Strasbourg and there decided that the two week ocean voyage behind us called for an interlude in Paris. Actually, since leaving Bremen we had never been more than a hundred yards from the shore on either side of the boat. More often, land was an easy jump from the side. But the Siren's song from Paris was compelling and I particularly wanted to pave our way for the anticipated diving along the Mediterranean shore and finally in the Red Sea.

Paris is a long way from the sea, but only geographically. On weekends and holidays in the summer, spear guns, fins, and snorkels are as thick in trains and cars heading south as skis on a "Snow-bunny Special" from New York to Stow at Christmas time. France was skin diving minded a good while before "frogman" became a household word in the States. Today they have organized the sport to a degree of maturity that will amaze and—I think—please most of us.

The visiting skin diver who starts in

Paris will find that the wheels begin turning with well-oiled efficiency at the office of Robert Gruss (17 Rue Jacob). He is vice president of the most remarkable skin diving club in the world, Club Alpin Sous-Marin of Cannes.

Robert Gruss' English is not extensive

and my French is non-existent. But enthusiasm in a common interest bridged the gap. In a half hour pleasant chat at his office he familiarized me with diving facilities and conditions along the Riviera coast and undertook to write his colleagues, Mr. Broussard and Rebikoff,



STAN WATERMAN and HENRI BROUSSARD in the club room of the Club Alpin Sous-Marin examining amphora and other relics brought up from the depths of the Mediterranean by club members.



to prepare them for our arrival. We wished to take our boat over to Corsica for some preliminary diving. He would see that all the filled Aqua-Lung tanks we needed, plus additional equipment was at our disposal when we arrived there.

We met again next morning at the offices of La Spirotechnique, 6 Rue Cognac-Jay, where I was introduced and shown all the latest available equipment: cameras, Rebikoff torpedoes, suits, regulators, and such. Spirotechnique is the central outlet in Paris (and France) for European diving equipment. And the equipment on display there would quicken the pulse of even the most luke warm skin diver. I came away comparatively unscathed.

Every problem in how to get started with our diving program in the Mediterranean had been dissolved by Robert Gruss, a courteous and efficient person for a visiting skin diver to know.

Unfortunately we never reached the sea with "Little Vigilant". In September and October there is very little rain in the area of the Rhone glacier. So hundreds of miles away the Rhone River in France shrinks several feet and all south-bound traffic is stalled at Lyon. Our diving plans dimmed and finally vanished. But I resolved that I would continue on wheels to Cannes to extend my acquaintance with Club Alpine Sous-Marin. The name itself — Underwater Alpine Club — intrigued me. Further more, the reception in Paris caused me to anticipate a club that was unlike anything we have in the States. I was not disappointed.

Every club that shows even the faintest pulse of life, is 99% of the time held together by one moving spirit. This is a somewhat bland generalization, I realize, but the reader will understand what I mean. For Club Alpine Sous-Marin the outstanding spirit is Henri Broussard, an energetic, vital gentleman who is not only a veteran diver with hundreds of hours of deep diving experience, but an agile administrator who lends his non-diving, non-business time to the development and growth of his club.

The club room is in the Martinez Hotel on Blvd. de la Croisette, which extends along the Cannes waterfront. On a crisp October afternoon I waited under the handsome metal sign (see picture) for Henri Broussard and his wife. They were making a special Sunday afternoon trip over to show me the club. The club room, itself, turned out to be a museum of amphora, Roman anchors, cannon, and other priceless relics combed from the bottom by the members. The walls were lined with pictures, many of which have become familiar to us in the books by Diolo, Broussard, and Rebikoff.

As we chatted I fired off routine questions about number of members in the club, number of Aqua-Lungs available, etc. I got such non-routine answers as: one thousand members (approximately), fifty Aqua-Lungs, two compressors, three club motor boats, etc. He further ex-

the unfolding picture of a club that has "everything", and was on the verge of proposing my own immediate membership, when Henri invited me to see the filling station and equipment shop. On Rue d'Antibes, a few blocks away, a real filling station (with gas pumps and grease pits) has been partly taken over by air storage tanks, a loft stacked high with single, double, and triple tank units, and the club's main compressor. This latter unit is the European version of the big Ingersoll-Rand and makes short work of filling the big storage cylinders.

Surely the club's most priceless asset is the one that cost them nothing, a three month summer diving season, July through September, in which day after day is warm, calm, and clear. The weather is so reliable that small boats can venture far from home with complete safety. Now, in October, the diving was mostly finished with just a hard core of intrepid souls still making excursions into the steel blue, cold waters off Cannes. With the Mistral whipping down from the mountains in the west, the sea could be dangerous in a matter of hours. So I didn't feel too badly about our own diving plans having misfired.

October was a bad month to think of diving in France. But the warmth and generosity of Monsieur Gruss and Broussard's reception to a wandering skin diver, apparently had no season. Perhaps it is men like these, with their ready interest in any fellow skin diver, who make a club really great. I hope that many who read this may some time soon enjoy the hospitality of Club Alpine Sous-Marin themselves.

## The Compleat GOGGLER

By Guy Gilpatrick

Watch for this book to be reprinted in "Skin Diver" beginning in the March issue. The Compleat Goggler is the first book ever written about goggle fishing and will hold your undivided attention from beginning to end. This book is now out-of-print and much in demand the world over. "Skin Diver" is very fortunate in being able to bring the text and illustrations of this great book to you. The Compleat Goggler will be published in four series. First issued in 1934, the book has never been equaled by any other... Watch for it... Starts in March!!!

Exclusively in  
"THE SKIN DIVER"

plained that both European and American members, who spend the summer along the Riviera, frequently make their own yachts available to the club for more extensive expeditions (i.e. hunts for wrecks, salvage of amphora, etc.).

By this point I was rather stunned with



"Stop rushing me, Fred — I'm hurrying as fast as I can!"



**MINNESOTA Skin Divers Club** — Club members brought this old boat up from the bottom of Christmas Lake, the frozen lake is about 20 miles west of Minneapolis.—Travis Photo.



**WINTER WATER MEN** — Lexington, Kentucky. Orville Reynolds lends a helping hand to William Fitzpatrick as they test their new rubber suits. Snow was on the ground and the temperature was in the 20s. — Hazel Fitzpatrick Photo.



**TWO MEMBERS** of the Diving Jets of New Jersey comfortably pose on an ice laden jetty, just relaxing between their underwater excursions.



**BUD JORDAN** of Norwick, New York, has just emerged from his diving hole on Chenango Lake. Diving conditions: 26 inches of ice, 6 inches of snow, 28 degree water, 25 foot depth.

## PHYSICAL REQUIREMENTS FOR DIVING SAFETY AND COMMON ACCIDENTS

On a health examination the following points are of great importance, and here is where the family physician can serve best to prevent accidents. Perfect health is mandatory. The ideal type of individual is young, slender, and composed and with good vision. Obesity is a definite hazard, as fat tends to retain nitrogen. Since most obese individuals are usually out of condition, they are more prone to exhaustion. Exhaustion is one of the most common hazards to a diver. If treading through water is compared to continuously walking up stairs, it is easy to see that an individual must be in good condition to participate for any period of time. It becomes obvious that any type of chronic illness, such as arthritis, chronic otitis media or sinusitis, heart disease, asthma, syphilis, and chronic gastric intestinal disturbances, is apt to prove disastrous to a diver. Any nervous tendencies in an individual should prompt a physician to discourage him from diving. Nervousness and panic accelerate one's metabolism and prevent clear thinking in situations where cool-headed thinking would otherwise pre-

vent an unnecessary accident. Since most divers dive in teams, the frightened, nervous, or panicky individual can jeopardize the lives of others who may find it necessary to go to his assistance. Incidentally team diving is encouraged, and many times a diving buddy has been the one to assist an exhausted or frightened diver to the surface and safety. A prospective diver should, of course, know how to swim and be at home in the water.

Clean living habits, adequate rest, and plain simple diets are to be encouraged. The effects of cigarettes and alcohol are well known, and the obvious circulatory retardation imposed by them can be dangerous to divers. Individuals who tend to have excess intestinal gas or are prone to constipation should also be discouraged from diving. Head colds are particularly detrimental in diving and may decrease pressure toleration on sinuses and ears. If eustachian tubes are sufficiently edematous so as to prevent equalization of pressure on the eardrums, rupture of the drums can promptly ensue with only 5 to 10 lb. pressure. Under pressure an individual may also force infected mucus into the middle ear, sinuses, or lungs, with resulting infection occurring as a complication.

By WILLIAM T. BURNS, M.D., Long Beach, Calif.

Reprinted by permission from The Journal of the American Medical Association, Sept. 3, 1955, Vol. 159.

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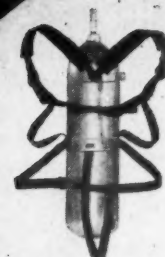
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FJ2—Navy Type Double Tank Block: \$14  
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U.S. Divers is celebrating its Tenth Jubilee Year... ten years which have proved to the sports world the mechanical excellence and matchless performance of the "Aqua Lung" SCUBA. Ten years of *Safety... Quality... and Dependability*. Ten years of operation without one casualty traced to mechanical failure.

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This type unit represents the equipment now used by the American, British, French and Canadian Navies. Assembly consists of the DA Two-Stage Regulator, FJ2 Double Tank Block with "J" Constant Reserve Valve... permits dives of 140 minutes duration.

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SCUBA

New '56 Regulator Mouthpiece and Hose Assembly.

Standard equipment with all 1956 production Regulators. Incorporates non-return valves in both the inhale and exhale sides; stops water from entering the breathing hoses.

X60—Mouthpiece (Separate—see illustration) \$2.95

X60H—Mouthpiece and Hose Assembly (complete) \$9.95

"R" Automatic Reserve Valve. The new "O" Ring (which replaces Teflon Washer) seals perfectly... easily. Permits fingertip attachment and removal of Regulator from Tank Block. "R" Valve gives the diver adequate reserve of air to return safely to the surface from any depth. Completely automatic.

"J" Constant Reserve Valve, U. S. Navy Type (pre-set at 300 p.s.i.) "O" Ring replaces Teflon Washer. "J" Valve gives diver a known, pre-set reserve of air. Manually operated by easily accessible pull rod.

**DY \$45. NEW LOW!**

DA "Aqua Lung" Regulator: \$80.00. The famous two-stage Regulator, U. S. Navy used and approved... Ten years of faultless performance.

DW Aqua Lung "Stream Air" Regulator: \$65 Navy chromed brass and stainless steel construction throughout. New advanced Cousteau-Gagnan process. Features ease and naturalness of breathing, air economy.

DY Aqua Lung "Jet Air" Regulator: \$45.00

Improved Cousteau-Gagnan process. Fiberglass housing; all chromed brass and stainless steel mechanism. Easy breathing, economizes air.

Weight Belts are necessary to gain "neutral buoyancy" for effortless motion underwater. New scientific design prevents weights from slipping on the belt and from pinching body.

M-LD 8 Lb. Lead Weight Belt: \$9.95

M-CI 8 Lb. Cast Iron Weight Belt: \$5.95

FOR SAFETY'S SAKE... Pressure in the cylinder must be checked before each dive. The '56 Pressure Gauge and all Filler Attachments are equipped with the new "bleeder valve" which breaks the air pressure and permits fingertip removal after use. "P" Pressure Gauge (with new "bleeder valve"): \$11.95



# The Underwater Equipment with "LIFE INSURANCE!"



**CY-Cyrano Dive Mask: \$4.95**  
Ingenious design with flexible built-in nose, permits diver to grasp nose and blow outward to relieve pressure on the ears. Widest vision, shatterproof lens.

**SM-B-Squale Dive Mask, Blue, or white (W): \$4.95.** Expert skin divers, world-wide prefer the famous French Squale. Navy Endorsed. Finest in design and quality. Solid stainless steel rim, shatterproof glass lens.



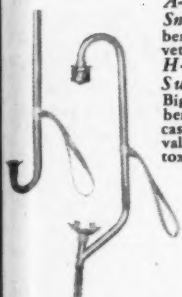
**CM-D-Champion Deluxe Dive Mask. Specify Blue (B), Green (G), or White (W): \$4.95.** A finely styled, roomy mask that fits any face with a firm, cushiony seal. Features shatterproof glass lens, stainless steel pressure band and new split headband with most efficient locking device.  
**CM-J-Champion Junior Dive Mask: \$3.50.** Stainless steel rim, shatterproof glass lens.  
**CM-S-Champion Standard Dive Mask: \$3.95**  
**CM-L-Corsair Swim Mask: \$2.95.** Lucite Lens.

**1688-"Aqua-Eye" Camera Case: \$6.95.** Amazing GE silicone construction. Camera controls are easily accessible through soft, flexible sides, 9" long, 7" high. Holds "still" or movie camera.



**Y-105-Watch Case: \$7.95.** Sturdy chromed brass construction with "O" Ring; heavy shatterproof crystal. Will house and keep watch dry underwater.

**Y-102-Combination Compass and Depth Gauge: \$18.95.** A precision instrument of new, improved design. Chromed brass construction with luminous dial. Measures depth to 300 feet.



**A-RS-"Aqua Lung" Snorkel: \$1.95.** All rubber, straight type, design veteran skin divers favor.  
**H-SP-Hawaiian Swim Pipe: \$1.95.** Big 3/4" plastic tube, rubber ball valve in plastic case. Gum rubber spit-valve and headband, non-toxic mouthpiece.

(Swim Pipes and Snorkels starting at \$1.00)



**M-F-S Manatee Standard Fin: \$7.95**

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Experienced divers favor this big, comfortable, powerful fin with solid heel strap. Special gum rubber, scientific design afford flexible, effortless action. Extra roomy foot pocket gives comfortable fit with Frogman Suit.



**The famous "Champion" Arbalette Spearguns.** The original, rubber-powered Arbalette cross-bow, imported from France, the most efficient underwater speargun developed. Silent, weightless under water, effortless to handle. Non-corrosive. floats once spear is released. 1501 Standard Arbalette: \$19.95 1502 Deluxe Arbalette: \$24.95. 1503 Junior Arbalette: \$17.50. 1504 Baby Arbalette: \$13.95. H-SG Hawaiian Sling Speargun: \$3.95



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**P-F-S Power Dive Foot Fin: \$7.95**

Sleek, black rubber with stiffness in fin blade and supporting ribs. Flexible full-foot pocket with open toe design prevents cuts and abrasions from coral, etc. Extra rib support under foot and blade. Result: more powerful thrust and snap. Here's top quality, beauty, efficiency at popular price.

Great, new adjustable foot fins, starting at \$2.95 (Junior). \$3.95 (Standard).

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line

# Northeast Council

By GARNETT E. MAJOR and  
JOHN M. ERVING

Although it was predicted that skin diving would never become a popular sport in the cooler waters of northeastern United States, today thousands of divers are enjoying this great new sport 12 months of the year. The rapid rise in interest brought with it accidents and other unfavorable publicity which threatened further advancement in the entire area. Skin divers were unduly accused of committing acts detrimental to good sportsmanship by commercial fishing and lobster groups.

A group of diving enthusiasts, noting possible extensive restrictions on the sport, banded together to form the Northeast Council of Skin Diving Clubs, Inc. They felt that this undue publicity could be offset by an affirmative program of public education and public service. In addition, the council could serve by bringing the divers together, adopting standards in safety and sportsmanship, conducting tournaments which would bring the sport into the public eye, assisting in forming local clubs, and testing new and unproved equipment introduced on the market. For these reasons, the Northeast Council was born.

The first major event was the Northeast Council Fresh Water Treasure Hunt held at Lake Winnepausakee, New Hampshire on July 31, the first derby of its kind to be held in the United States. Two separate events highlighted the program, one for skin divers and one for Scuba divers. Two sets of aluminum discs with coded numbers and varying point values were planted on the lake bottom in an area roughly 100 by 200 yards. The 56 entrants working in pairs and using underwater slates and pencils searched them out and recorded the numbers.

Because of the reputation earned at the treasure hunt, the council was invited to direct the East Coast Individual Spearfishing Championships at Watch Hill, R. I. on August 28. This was in co-sponsorship with Mr. Steven Tjaarda of Oceanic Research Associates and Mr. & Mrs. Ed LeTurney of the Watch Hill Aqua Shop. 72 divers from 7 eastern states competed for the four trophies awarded for spearing the heaviest single fish.

The 1955 tournament season was con-



Left to right as you look at picture: Eldred Field, attorney for the council, Donald Lamont, Elman Myers, James Cahill, John Erving, Donald Robinson, standing. Seated: Erving S. Pfau, Percy Kingsley, Pat Cacciapaglia, proxy for Norman Schiff, and Garnett Major.

cluded with the spectacular Northeast Council Individual Spearfishing Championship held September 11 at Gay Head on the island of Martha's Vineyard, Mass. The host club was the Vineyard Vikings. Headquarters was established at Wally Tobin's Beach shop in Vineyard Haven, one of the best equipped aqua shops on the east coast offering every convenience possible to the divers from air to minute spear parts. Many of the 106 contestants came with their families and made a week-end of it.

Prizes valued at more than \$1000.00 were awarded. First prize of a one week vacation for two at the famous Seahorse Motel in Marathon, Florida, was won by Dan Prescott of Providence, R. I. Accommodations at the Seahorse were donated by Cal and Wes Bartelt, owners, and round-trip air transportation via Eastern Airlines was given by the council. Mr. and Mrs. Prescott enjoyed this holiday in the Keys from December 15 to 24.

Second prize of one Scott Hydro-Pak, donated by the Scott Aviation Corp., was won by Denis Hurley of Hartford, Conn. Third prize of a 1956 model Divair went to Miss Myrtle Gagne, the only woman participant, also of Hartford, Conn. Fourth prize of a 100 Fathom underwater watch donated by Healthways went to Franklyn Vogel of Kearny, N. J.

In many of the eastern states rumors are rampant among the lobstermen about the exorbitant number of lobsters that

are being taken, particularly those that are stolen from traps by skin divers. Last July the Northeast Council offered a \$50.00 reward for information leading to the arrest and conviction of any skin diver caught molesting, robbing, or otherwise tampering with lobster pots. This has served to squelch many of these damaging rumors and has received much good publicity through the press and the various state conservation Departments. We are happy to say that the reward has not yet been applied for.

When all the greater Boston beaches were closed to use by skin and scuba divers, a committee of officers from the council met with Commissioner Kelleher of the Metropolitan District Commission, and succeeded in having the beaches reopened to responsible divers using approved equipment. This accomplishment allowed many divers to again participate in the sport in the heavily populated Boston area.

The late summer floods here in the east provided skin divers with the opportunity of gaining some much needed public goodwill. LIFE magazine and a number of national and local newspapers carried stories and pictures of the heroic deeds of the Worcester (Mass.) Frogmen and the Fitchburg (Mass.) Sharkmen. As a result of this, the council is now engaged in drawing up an overall program with Mr. Albert O'Connor, Director of Region One (New England, New York, and Jersey), of Federal Civil



Defense. This program, when in operation, will make available to the local units a wide variety of equipment that would otherwise be difficult or costly to obtain. It will include such things as compressors, air bottles, and in some cases trucks that are fully equipped with a skin divers needs. Such a truck is now in operation in Leominster, Mass., where the Fitchburg Sharkmen have it at their disposal for practice drills and other club functions.

The council will serve as official liaison agency between Federal CD and the divers in the 8 state area. This step alone will go far toward having the sport accepted and adopted as a vital part of our national welfare.

The Northeast Council was recently notified by the International Underwater Spearfishing Association, A.A.U. that the 1956 national championships will be directed by the Northeast Council. This is the first time that a tournament of this magnitude has been held on the east coast. More news of this event, time, place, and eliminations, will be carried by the *Skin Diver* at a later date.

Although it was originally intended that the council would accept only club memberships, it was apparent in the beginning that the number of clubs was small. As a result, the biggest majority of members were independent. Since then, the council has been instrumental in bringing the independents together and assisting them in forming local groups. In the future, individual memberships will be welcomed on a non voting basis, at \$3.00 per year.

The governing body of the council is the board of delegates. These representatives are selected from the local clubs in the following way. We recognize a club as being a group of divers consisting of 5 members. They do not have to be formally organized with constitutions, charters, etc., but who usually dive together. For the first five members of each local club, they may send one voting delegate to the council. For each additional 10 members, they are entitled to another delegate. The number of delegates is determined by the number of local members that are paid up members of the council. Club members are admitted at \$2.00 per year.

Membership is open to anyone over 18 years of age. Applicants are accepted between 16 & 18 years of age if they are members of a recognized club.

The official address for the council is Northeast Council of Skin Diving Clubs, Inc., P. O. Box 42, Shawsheen Village, Mass.

In conclusion, we invite all skin divers and interested parties in the northeast to join with us in aiding this great new sport in becoming a major national past-time.



**JOHN STEEL** — only has to work from memory in order to paint the covers that have become so popular with the readers of *Skin Diver*.



**CHUCK BLAKESLEE**, co-publisher of *Skin Diver*, examines a WW II mine washed ashore at Laguna Beach, Calif. Demolition crews later disarmed the mine.

## CAVE DIVING

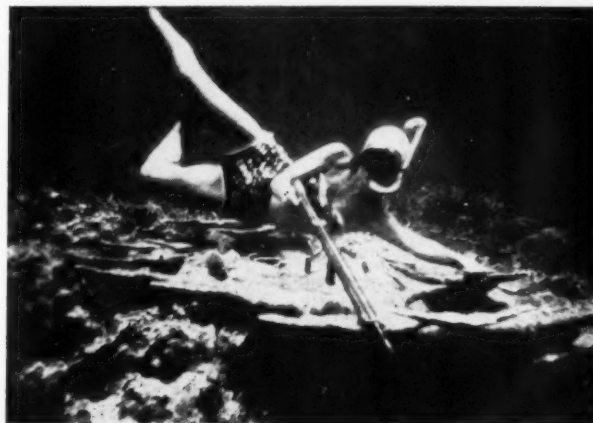
(Continued from Page 17)

"We hope to explore the new cave, and could possibly find a new cave system.

"Everything went according to plan. When we set out on this project there was the possibility that we would find nothing except one long siphon linking the two caves. Now we are very pleased."

Don Linklater, secretary of the Undersea Explorers' Club, said, "It is an entirely different feeling to swimming in the sea. When you're swimming under the sea you know that if anything goes wrong you can go up and there'll be air there, but underground you know that if something goes wrong you can't always get to air."

Cave diving is a "sport" developed since the war. There are groups of these divers in Europe, particularly France, in Britain and in America, but little has previously been done in Australia.



**ANNA MANN**, trying to pose in spite of her buoyancy, in the Hollandes Keys, San Blas Islands, Panama.

Fig. A  
Do Not Use This  
Type of Buckle

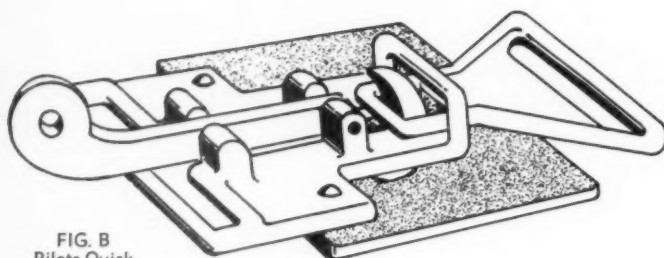
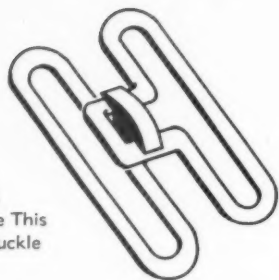


FIG. B  
Pilots Quick  
Release Buckle

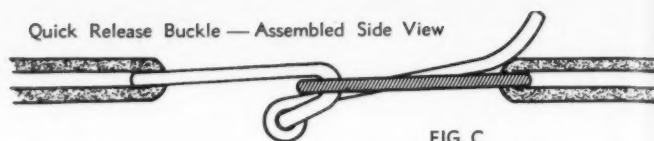
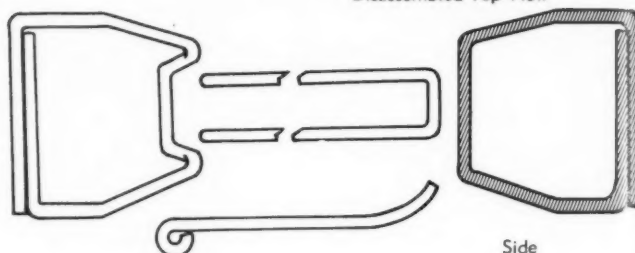
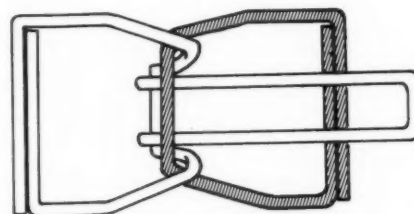


FIG. C  
Disassembled Top View



Side



Assembled Top View

Fig. C — release buckle can be constructed from a good coat hanger if no other material is available. It is advisable, however, to use  $\frac{1}{4}$ " steel or brass rod or a slightly heavier material. The material used must be cylindrical and of rigid composition. Adjust weight belt so it fits securely. This buckle is recommended by the Aqua Guards.

*For Safety in Diving...*

## TRAINING IS THE ANSWER

**CONTACT:** Your local Red Cross, Y.M.C.A., Dept. of Parks and Recreation, Los Angeles, California, or a local diving club for further information.



STUDENTS being familiarized with all types of SCUBA equipment through the Los Angeles County, SCUBA and Skin Diving Instruction program.



DICK FERG instructing some of the Long Island Dolphins Inc. members at their SCUBA course at the Kings Point Merchant Marine Academy Pool.—Photo by George Knobloch, Jr.

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## TREASURES

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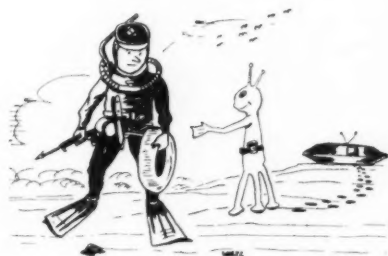
for and may still be there. On the other hand it may not, for it is known that beach-combers reaped a very rich harvest.

It may be wondered why when there are hundreds of wrecks of all periods around the British coasts so few efforts have been made in recent times and with modern equipment to save the treasures some of them must contain. As suggested above, the most valuable would be attempted by the legal owners immediately after their loss, and most of the others is too great a gamble to appeal to professional salvage contractors, who are practical business men, preferring the less uncertain jobs which provide them and their divers with daily bread. Owing to the cost and difficulties of operations with the normal helmet type of dress, amateurs have had no chance to take part until the invention of scuba. Even with it, British waters are the reverse of ideal for skin diving and for any serious work a full frogman dress, worn over thick woolens, is necessary.

Some old wrecks have been quietly found and plundered of treasure. There is the case of a poor farmer who used to swim in a certain cove regularly and once let slip something about having found an old wreck. Suddenly he refused to talk about it and shrugged the thing aside. Since this was some years ago, before the days of aqua lungs, whatever he found must then have been exposed and in shallow water, for he suddenly became well-off and bought a farm, later selling it and going out to Australia.

There is also a romantic story dating from somewhere about the middle of last century. No definite date or location can be given as the fortunate diver concerned was wary about handing out much information, from which it may be guessed that he believed some treasure still remained. This diver, John Gann, of Whitstable, in Kent, was engaged in ordinary salvage work on the Galway coast and during visits to the local bar became friendly with an Irish fisherman who confided that he knew where there was "an Armada ship."

They decided that whenever Gann had time off from his ordinary work they would seek this wreck and share any treasure found. Going in the fisherman's



boat, they dragged the area very carefully with grapnels and after several weeks of disappointment and hooking the wrong obstructions, they at last hooked a wreck. Gann went down and found the rotting remains of what he described as a very old ship and amongst these were several keg-shaped heaps of Spanish dollars, the wood having crumbled away and left the coins "cemented" together by corrosion and sea-growths. These he shared with the fisherman, Gann using his to build a street of houses in Whitstable which he named "Dollar Row." The nature of the coins shows that the ship must in fact have been of later date than the Spanish Armada.

There is no coast in the world which does not offer interesting or valuable old wrecks to the amateur diver. Even countries as recently colonized as South Africa and Australia have numerous treasure wrecks, for long before white men settled there East Indians plied those seas and often came to disaster on uncharted coasts.

The American continent should be especially rich, for it was the source of the gold and silver which freighted the Spanish treasure fleets. Many of these ships must have left their bones there as well as amongst the West Indian islands and off the Florida coast. How the finding of one could bring wealth was shown in 1687 when William Phips,

later Governor of Massachusetts, salvaged the treasure from a Spanish galleon, making a fortune for himself and his backers.

Apart from treasure in money there is also what the Aqua Lung master J. Y. Cousteau calls "treasures of the mind", and it is in these that the present writer is most interested. If in seeking them golden treasure should be found, well and good; but the quest for knowledge of old ships, their equipment, and the men who sailed in them, or for historic relics, can give a pleasure and satisfaction unconnected with intrinsic value.

Mr. Edwin Link, chairman of a U. S. airline company, who in April, 1955, announced his intention of seeking the grave of Columbus' *Santa Maria* at Lemonade Reef, Haiti, is as surely in quest of treasure as those who search for golden galleons—and what a treasure even the smallest relic of that historic ship would be! So too was the *Monitor* Historical Society of Dundee, Michigan, when its founder, Mr. Raynor T. McMullen, offered \$1,000 to anyone finding the wreck of the "Yankee cheese box on a raft" which fought the *Merrimac* in 1862 in the first battle between ironclad ships. So also were the two young U. S. Marine Corps divers who on July 17, 1955, claimed to have found the *Monitor* and to have dived to her, but were not interested in the \$1,000, saying that their reward would be to see her raised and preserved as a museum-piece.

Some day a North American skin diver may find the remains of a Viking ship to prove that the old sagas which tell of voyages to Vinland the Good recall visits to New England. On the west coast oriental wrecks may perhaps prove that Chinese or Japanese mariners in ancient times reached America. Perhaps the sea will solve the mystery of Quetzalcoatl, the bearded white god of ancient Mexico whom some think may have been a European castaway on the Central American coast centuries before Columbus. When the sea gives up its wrecks many things now unguessed may have to be added to the history books.

The finding of any wreck which may be older than about 1600 should be reported to a museum or other learned institution and reserved for examination by experts. The wreck of the little *Sparrow-Hawk* of 1626\* provided valuable evidence for the reconstruction of small ships of her time, and older wrecks would be more valuable still.

The amateur diver is much more likely to find such "treasures of the mind" than galleons laden with gold but, if expertly examined and salvaged, these could be very greatly rewarding.

\**Sparrow-Hawk*, a 17th century vessel in 20th century America", *The American Neptune*, vol. 13, p. 56.

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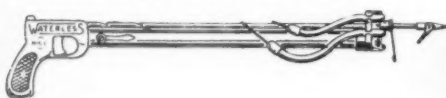
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## 1956 East Coast Underwater Championships

Plans are underway to prepare for the 1956 East Coast Championships. Last years national champions were from the East Coast and the East Coast clubs would like to see that happen again. To that end a tentative working committee composed of delegates from East Coast clubs was set up on December 10 to plan for this years meet.

The Long Island Dolphins, who have been elected to sponsor the 1956 meet, feel that with the rapid growth of spearfishing on the East Coast, there are many more clubs interested in competitive spearfishing than have participated in the last three championships held under its direction.

To insure that the 1956 meet is representative of the entire East Coast area, sectional contests have been proposed. It is felt that all interested teams will be able to enter these local contests, and only the winning first and second place teams will be required to travel the greater distances to the final East Coast meet.

These sectional contests will be under the sponsorship of a club which is located in one of the four general areas of the East Coast. The tentative dates for the Contests; for the sectional run-off, July 1; for the East Coast Meet, July 8. With a list of interested teams, the working committee of the delegates from the East Coast clubs will be able to formulate more definite plans for the local contests. To insure a successful and well run meet, we must have there fore, by February 15, the names and addresses of clubs on the Eastern Atlantic Coast which are interested in entering a team in the 1956 East Coast meet.

All clubs contacting us will be sent an application blank and copy of the AAU rules which cover competitive spearfishing. In addition, they will be put in contact with the club in their local area which will sponsor the sectional contest which will lead up to the East Coast Meet.

Please address all inquiries to: EAST COAST UNDERWATER SPEARFISHING ASSN., 1956 East Coast Meet, Box 165, Flushing, New York. Paul R. Cox, President, The Long Island Dolphins, Inc.

# WATER POLLUTION

By JOHN LOGAN

Shall we start today to reverse the trend of increasing the pollution of our beaches and aquatic sport waters? OR shall we abandon fifty miles of world renowned aquatic recreational areas from Palos Verdes to Malibu?

The city of Manhattan Beach, Mayor T. Faye and City Manager L. Swanson are spearheading a battle to prevent increased pollution of the Santa Monica Bay by the City of Los Angeles. This is not a new thing, intense complaints have been voiced many times since 1912 when the facilities at Hyperion first became a pollution nuisance. Our Santa Monica Bay beaches have been quarantined and swimming prohibited for months on end by the State Board of Health. The devastation of sewage pollution to marine life at one point along our coast has been proven to thousands of skin divers who used to dive there. Not even the kelp could survive! The abalone shrunk in their shells and starved to death! Large numbers of dead and sick lobsters have been washed ashore! The California Council of Skin Diving Clubs is seriously considering a plan to remove the few remaining abalone from the outer limits of the infected area and replant them in an uncontaminated location.

At the present time the solution of the problem is in the hands of the State Water Pollution Control Board. At a meeting held in Los Angeles 7 December 1955 the board upheld the appeal of the anti-pollution forces to review the "Requirements for Disposal of Treated Sewage into the Pacific Ocean at Hyperion by the City of Los Angeles." These requirements had been drawn up by the Regional board (local) number four. It was this same board that allowed the pollution conditions to arise and continue all these years.

The Cities of Manhattan Beach, Hermosa Beach, Redondo, Torrance, Santa Monica, The Playa Del Rey Civic Improvement Association, South Bay Board of Realtors, Ocean Fish Protective Association, California Council of Conservation Clubs, California Wildlife Federation, Associated Sportsmen of California and Council of Skin Diving Clubs and many sportsmen's clubs such as the Sea Lancers of Santa Monica have voiced approval of this view and are recommending that NO SEWAGE SOLIDS SHOULD BE DUMPED INTO SANTA MONICA BAY.

The alternative process offered for consideration and trial is called the "Standard Rate Activated Sludge"



LOVELY GINGER STANLEY, who holds the World's underwater distance record (7 miles) "bubbles" with enthusiasm as she answers the questions of NBC announcer, from beneath the surface of the water at Florida's Silver Springs. Picture was made during an underwater interview, broadcast by Monitor on Sunday, September 18th, 1955, at 8:30 p.m. Announcer is Warren Prince.

which would remove all solids from the sewage and convert them into usable fertilizer at a guaranteed market price that would reduce the cost of present sewage treatment! Even the Los Angeles City Engineer has recommended a trial of the "Activated Sludge" process which has proven so very successful in large eastern cities such as Milwaukee, Chicago, etc.

Many communities surrounding Los Angeles County are in distressing need of water. They have repeatedly asked to be allowed to use the sewage effluent to raise the level of the water table and for irrigational purposes. Santa Ana at present is buying water pumped from outside the State to pump into the ground to raise the level of the water table. The sewage effluents could be perfectly purified in cost-free underground filtering and would only have to be pumped one tenth the distance.

Conservation, common sense, sanitation, and economics all demand the proposed method be given a trial to prove its worth especially since NO CHANGE IN THE PRESENT installation would be necessary. Why spend millions of dollars to magnify and increase the mistakes already made at Hyperion?

Will all club secretaries and interested individuals (any diver who ever dives at Palos Verdes or Malibu) please write or telegraph to the "State Water Pollution Control Board" Room 610, 714 Capitol Ave., Sacramento 14, Calif. and tell them to prevent all sewage solids and only unobjectionable effluents being disposed of in Santa Monica Bay.

There are many other areas in this

great nation of ours that are being similarly destroyed by the "progress" of man. Can we as sportsmen and nature lovers endeavor to direct this progress to construction instead of destruction in our rivers, lakes and shore lines?

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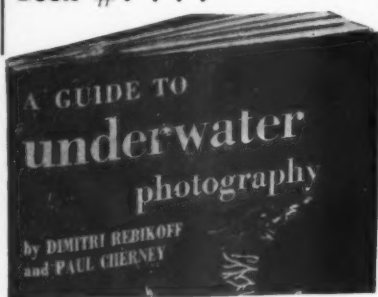
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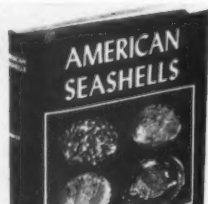
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## DEEP BREATHING . . .

(Continued from Page 15)

enced this on the surface, with snorkel in the air but not blown out, I am convinced should it occur beneath the surface, the diver would not be able to surface unaided. This is but a single individual's experience but warrants consideration as a possible hazard to be reckoned with in setting your margins.

The greater depths made possible by preliminary deep breathing also make possible decompression effects not normally experienced in free diving. This has been mentioned in skin diving literature and I can verify from personal experience that decompression effects can abruptly block nerve centers while surfacing rapidly from a deep dive. I now make it an invariable practice to slow my ascent gradually from 30 feet and float relaxed from 15 feet to the surface. I have found that maximum distance can be covered if you slow your rate of exertion towards the end of a dive. I recommend that any time you cease swimming and relax during a dive, you form the familiar OK gesture with a hand in view of your safety man. It won't do you any good but he'll probably appreciate it.

The deep dives made possible by preliminary deep breathing exposes the diver to "squeeze." The depth at which squeeze occurs can vary a surprising amount and catch you off guard. I recommend that you continuously equalize pressure in your mask as you descend and immediately cease descending when you cannot equalize. There is no convenient way to find out how much squeeze you individually can tolerate, and the bottom of a dive is no place to find out.

Remember deep diving differs basically from recognized competitive events such as jumping or running. In most sporting events, you do your best and if it's not good enough you simply don't win or don't set a record. Deep dives are more like "Russian Roulette." Here you determine what you must be capable of before you have done it. If you don't perform up to your expectations your life is in the hands of your diving buddy, and if you haven't established any safe guards you'll never have a chance to try again. Even if your buddy has a lung to give you air, if you decide to break off the dive too late, most of the margin that the success of artificial respiration hinges upon is already used up.

There is no such thing as a true record skin dive. No such competitive sport event exists. Should you try to set a "record," you are competing with men

(Continued on Page 36)

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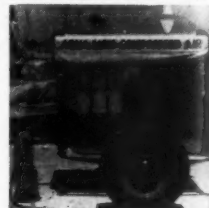
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# Puerto Rico Treasure

By BOB MASER

(From Bajo el Mar Caribe)

Back in August, on a warm Sunday afternoon, Howard Teas, a veteran spearfisherman, and I, a novice to the sport, were heading back to the beach off Guanica, Puerto Rico with nothing much to show for our efforts except one Bermuda Chub shot by yours truly and a few lobsters. I had just gone down to investigate a promising hole near a drop-off when I saw what appeared to be a cylinder composed of cement wedged in a crevice in the coral about four fathoms deep. Howard, who was cruising along on the surface, saw it at the same time and dove to observe it closer. On inspection, it turned out to be what we thought was a ship's bell.

We started at once to try to dislodge it with Howard's hunting knife. We worked in shifts. Another nearby spearfisherman was looking for game to shoot and as I was down at the bell with the knife trying to break the coral away, a huge sting ray casually swam within two feet of me. Apparently, he had been startled and chased my way, I kept look-

ing for barracuda and other meat-eating fish after that but none appeared. After about three-quarters of an hour of futile diving and prying, we finally gave up for the day with plans already brewing in our minds as to when we could return to claim our underwater treasures.

We had planned to return the following weekend but a spearfishing meet with some boys from Ramey cancelled our hopes. However, on the next weekend, we were off to Guanica with pick, crowbar, lung and boat.

When we got to the drop-off, the water was murky and we had a hard time re-locating the bell, but after two hours of hunting, we finally came upon the sight of our treasure. Before starting to dislodge the bell, we took pictures of it in its underwater hiding-place and also action shots of the preliminary dives to loosen the bell from the coral crevice. Then Howard got into the boat to put on his lung and I went down with a pick and immediately tried to pry it loose. After about three dives, I dislodged it and I started to work it up the nearby coral bank nearer the surface so it would be easier to put it in the boat. It must have been heavier than I thought, because after getting it up to within about fifteen feet of the surface, I slipped and down it went to the bottom

with me attached. About this time, Howard had donned his lung and had come upon the scene. He seemed to be disgusted that I, without a lung, had broken it free while he was still busy adjusting his breathing apparatus. However, we got it into the boat by means of a rope with the two of us lifting from below while Don Erdman pulled from the boat.

When we reached the beach with our prize and inspected it, we found it to be an old church bell and not a ship's bell as we had thought. The weight was seventy-three pounds. By calculation, we have figured that because of the heavy incrustation of coral in comparison with other bronze objects found in salt water and known to be there for over a century and a half, we estimated its age to be at least 250 years.

There are some inscriptions on the bell which are in French. All that we can make out are the words "Fait par Jes—" and an undecipherable date. The ball also has a Crucifixion and Virgin Mary in high relief on the sides.

We have tried to find more about our prize, but have been unsuccessful to date. Suggestions or aids in authenticating our prize would be appreciated; however we are not soliciting aid in disposing of it.

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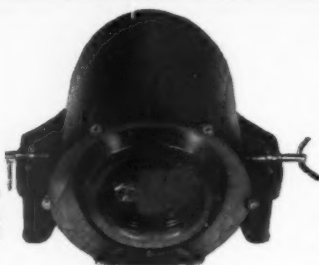


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## DEEP BREATHING . . .

(Continued from Page 34)

who are either ignorant of the dangers involved, men who are willing to take large chances, or men who are seeking publicity, etc. . . . not necessarily those who are the most capable deep divers. Should you set a new "record" it is at best a dubious accomplishment more likened to that of a fanatic "firster" than a true record breaker. The competition is just not sufficiently general nor are diving conditions sufficiently standardized to make such records meaningful or even comparable.

If you must know how deep you can dive, I suggest the following technique be used. It will give you an answer correct to a very few feet. Swim horizontally at shallow depths, weighted to neutral buoyancy and measure your maximum distance covered and divide this distance by two. Next put on a lung, inhale deeply and dive down with your tongue blocking the mouthpiece until you feel a squeeze. Then, breathing normally, make a slow ascent. Whichever of these distances is the smaller is your maximum free dive depth.

You have proven to your satisfaction how deep you can dive. Your only excuse to verify it is publicity or acclaim, and if you still haven't satisfied yourself, read further. Remember that "fickle margin" I mentioned? I used that word "fickle" advisedly. Your performance capability does follow a few rough rules. For example, fear, tension, excitement apprehension, cold water, poor visibility, lack of sleep, alcohol taken internally, all tend to reduce your capabilities. Whether you have "warmed up" too much or too little has a large effect. There are so many known variables and probably so many unknown ones that the way they will add up on any one dive is quite unpredictable. My experience indicates it is improbable that performance on any one dive can be predicted to better than 10%. Any record that is meaningful will be broken by narrow margins, say 1 or 2%. Remember that to break a deep dive record you must commit yourself before you know your capability on that dive. Remember also the odds on artificial respiration are not particularly attractive. A little figuring of odds will readily show why deep skin dives have not been recognized by any athletic organization and undoubtedly never will be recognized. The fact that there have been no recent publicized attempts in this country for such a record is complimentary to the good judgment of our skin divers.

# You're Missing Half the Fun

By **RAMON VALDES**  
(from Bajo el Mar Caribe)

You have just finished dinner and are enjoying the comforts of your couch or favorite rocking chair—or perhaps you are reading this magazine at the office (watch out! - the boss is right behind you). Your bosom is a storehouse of intrepid spearfishing tales: tales that would set the novice reeling on his feet; tales that make your chest swell with pride. But you're missing half the fun!

A picture is worth a thousand words. Rave all night long about your spearfishing adventures and people will listen, even gape. But show them movies of your activities and they will crawl up walls and jump into your screen. Oh, the marvels of movies! People will take your word (sometimes) for the thrills and chills of your underwater life, but movies of these activities will make you a hero overnight.

Movies bring the beauty and riches of the watery world into our very own. Our world is eager to learn the secrets of the depths; it is anxious to force the liquid medium to relinquish its strong grip on

the vast amount of information it holds.

In addition to the aesthetic appeal of movies, there is also L'affaire de greenbacks. Spearfishing films are very much in demand and therefore, the film does not have to be technically perfect in order to be acceptable. In fact, most of the films available are by no means technical achievements. However, they portray a true picture of undersea activity.

There are two requisites for underwater photography. Both are so important because without one, the other is useless: a camera and a waterproof case. We don't mean one that will keep out *most* of the water; it must keep out *all* of the water. Even a little salt water leaking into the bottom of the case will cause the fine mechanism of the camera to rust. No direct contact between the mechanism and salt water, is needed to cause rust. The air within the case becomes saline with a small seepage of salt water, and will ruin the camera mechanism.

After working on a trial and error basis for a while, you will soon get the knack of it and be able to turn out perfectly exposed films by measuring the light at the surface, taking into consideration depth and visibility, and pre-adjusting your lens accordingly.

Once in the water, swiftness and sureness are at a premium, don't expect a Captain or Grouper to pose for you. You can't say "hold it" to a shark or put a Barracuda on a salary. You have to "be there" always because it is impossible to shoot over a scene. Most of the time close-ups are the order of the day because distant shots underwater just don't come out good. Light scatters easily beneath the surface and water acts like a filter cutting off the vibrations in the higher part of the visible spectrum (red). Therefore, your distant shots (10-ft. and over) will look blue-grey.

A few books are published that deal with underwater photography. However, light and water conditions vary so much that the best way to determine correct exposure is by using a waterproofed lightmeter or by experience.

So, break open your piggy bank, borrow money, steal it, make it yourself, do anything to get started on underwater movies because you're missing half the fun.

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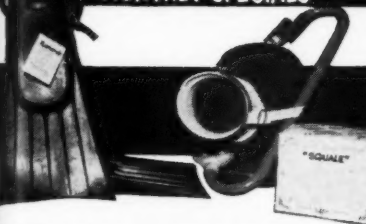
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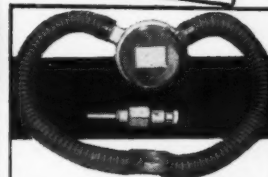
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## PRIZE STUPE OF THE YEAR

By CLARENCE KOSTBADE  
(Self Elected)

I have been serving on board U. S. submarines for about five years now. In that time I have had the opportunity to dive all over the Pacific Ocean from the U. S. to Japan, Acapulco to British Columbia. I have been diving for about 12 years now and you would think that with all that "mileage" and experience that I would have some sense . . . well, I don't!

A few weeks ago I was diving in Esquimalt Bay, British Columbia with a friend who is just learning scuba diving. Well, between the both of us, I think we overlooked about every safety rule there is. I am so ashamed of myself that I was going to keep this incident a deep, dark secret, but the more I thought about it the more I figured that other people are pulling the same stunts and getting away with it. Maybe after reading this they will think of safety first and "into the water" second.

We were in water around 30 degrees "warm" without a float. In the "big mad rush" of dressing I got my weight belt under my scuba harness. The scuba harness did not have a quick-release type buckle and the reserve did not work properly. I found out later. To top off all of that I did not have a knife. (It gets more disgusting as the plot thickens.)

I ran out of air at 35 feet with no warning whatsoever, so I made it to the surface, pronto! Once I was up I couldn't stay up because I had too much weight on the weight belt. I tried to ditch it but I couldn't because of the lung harness. I tried to ditch the lung and couldn't because of no quick-release buckle and my hands were numb with cold. Then I got scared and I couldn't breathe fast enough. I started looking around for a place to "light" before I drowned and spotted a barge affair about 30 feet behind me. I started for it, but I wasn't making any headway (or so it seemed). Well, after what seemed like hours I was half way there and ready to throw in the sponge . . . I had had it . . . then I heard the rustle of "Angel Feathers" . . . the next thing I knew I was hanging on to that barge for all I was worth, a new man, I had seen the light.

If you are giving an award for "The Prize Stupe of the Year" I consider myself the leading contender for it.

And may I emphasize that your magazine cannot over-emphasize safety in skin diving. Keep up the good work and high standard that you have been maintaining.

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## Central California Skin Diving Council Formed By DICK HARDIE

A recent series of meetings in San Jose, Sunnyvale, and San Francisco, California, have resulted in the formation of the "Central California Council of Skin Diving Clubs."

Robert B. Shaw of the Monterey Sea Otters was elected President, Dick Hardie of the Sacramento Skin Divers Exec. Vice Pres., Mrs. Marsh of the Pacific Grove Looney Gooneys Secretary, and Bill McJunkin of the Northern Calif. Skin Divers of Vallejo as Treasurer.

The above officers will preside for a temporary period of six months at which time regular elections will be held. We are still in the process of organization and prospects are very bright for an active and successful Council.

The question will undoubtedly be raised "What about the existing Council?" As far as we are concerned, there is no difference as most of the clubs at the organizational meetings were members of the original Council. We have adopted the Council constitution and will contribute to the Legislative Fund and California Wildlife Federation during our share of responsibility.

This way we can better deal with area problems and present a more united front in legislative matters. In the realm of area problems, most California skin divers are aware that north of District 18 which is at Yankee Point just south of Carmel, it is unlawful to take shellfish and crustaceans while using "underwater breathing apparatus". As you may have read in a recent Council bulletin, a group of Santa Cruz skin divers were stopped on the beach by the local game warden and warned that they were violating the law by taking abalone while using snorkel tubes. The amazed divers, being gentlemen and Council members, refrained from drowning the warden and reported the incident to the Council.

The first official act of the Central California Council will be to ask that a definition of underwater breathing apparatus as distinguished from snorkel tubes be added to the regulations covering skin diving at the Jan. 6, 1956 meeting of the Fish and Game Commission at Sacramento. This action of course will have been co-ordinated through both Councils and represents the wishes of all organized skin divers in the State. Incidentally, the above mentioned restriction on the use of S.C.U.B.A. was placed in skin diving regulations at the request of Central Calif. skin diving clubs Jan., 1952. We certainly intend that it does not backfire!

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## YALE AQUATIC CONFERENCE

By STANLEY GREER

The four day conference at Yale University got off to a good start on October 26th, with about 75 delegates representing the entire United States, and one delegate from India.

What is the C.N.C.A.? It is the Conference for Co-operation in National Aquatics. Now in its sixth year, there are twenty-two agencies such as the American Red Cross, Boy Scouts of America, Y.M.C.A., etc. that it represents. The CNCA is an advisory group and studies problems dealing with recreational aquatics.

A new SCUBA manual was the main project for this year's meeting and work groups were set up to co-ordinate the thinking of men from the entire country.

Certification of SCUBA divers is possible. The interest at the Yale Conference on this subject was unanimous. A National Council of SCUBA Divers, is needed and both the East and the West coasts have expressed interest, along with the Middle West. A National Council could work with the CNCA for a co-ordinated safety program and have the support of all CNCA members. Write Stanley Greer, Chairman Underwater Safety Committee, c/o American Red Cross, 549 S. Wabash Ave., Chicago, Ill., and send in a copy of your club charter, or council charter or your ideas in this matter.

Legislation was discussed. Captain Wren, U. S. Army reported that a study had been made and that there was no impending legislation in any state.

A reserve UDT and civilian program can be developed for harbor survey on a national basis. It is needed, and the Army and Navy are interested. Chicago SCUBA divers are ready and doing something about it. 100,000 SCUBA divers would be required to keep nine harbors open on the East Coast during critical times.

A safety and standards committee was set up at the Yale Conference and Mr. Denton of National Safety Council is investigating Standards through the American Association of Standards so that manufacturers can help set the proper safety standards for SCUBA. We need them.

The Experimental Diving Unit of the U. S. Navy at Washington, D. C. expressed their desire to have all clubs and councils send in accident reports to them. Thanks to Comm. Des Granges, Comm. Dwyer, and Lt. Ploof for a very wonderful visit through their installation.

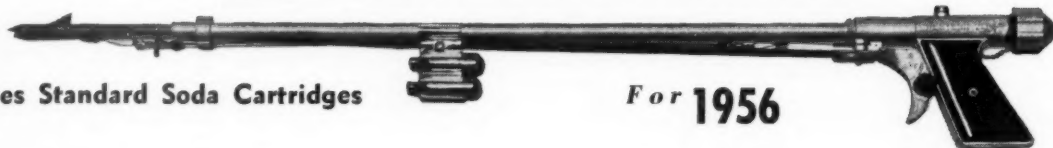
Minneapolis was host to the sixteen state Red Cross Conference at which we put all of the Red Cross Directors through a Skin Diving and SCUBA Diving trial. Many thanks to Dick Tittle of Midway Marine for donating the Scott Hydro-Paks, Jack the Frogman for his splendid help, Mr. Saint Onge from Donaldson's and the Minneapolis Skin Divers for their aid as instructors in this program during which all of the people received instruction in the use of the Northill Air Lung, the Aqua-Lung and the Scott Hydro-Pak. >

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# Fresh Water Spearfishing

By JESS MAXWELL

Should underwater spearfishing be legalized in fresh water lakes? That is a question The Wayne Star Newspaper of Wayne, Michigan has put up to the Michigan Conservation Department.

As most skin divers know, line fishermen take a lot more fish than spearfishermen. It has been proved. But do the line fishermen believe it? No, they don't. Hook and line fishermen are the direct cause of underwater spearfishing being prohibited in most fresh water states. In one reply to The Star, the Conservation Department said "Michigan fishermen have resisted all efforts of skin divers to legalize underwater spearfishing."

This is not just a fight for Michigan skin divers. It is a fight for all skin divers, whether they dive in the ocean or an inland lake. The whole sport of skin diving in fresh water may be at stake. True, the Conservation Department will let divers just explore and enjoy the scenery but when a diver can't resist a 8-lb. bass and spears it, the whole good name of skin diving is at stake. When this gets into the papers it infuriates line fishermen. They complain to the Conservation Department who in turn complains to the skin divers. In time, all diving could be prohibited. As it is now, carp and other rough fish may be speared in Michigan and other inland states. But very few states allow spearfishing. Why? There seems to be no good reason at all. Either they are afraid of the line fishermen or they are just plain stubborn. Other than that, the Conservation Departments of the fresh water states have no good reason.

In a letter to The Wayne Star, the Conservation Department said that a committee is now studying the subject. But so far no reports have been made.

All skin divers should be interested in this subject. If so, please help do something about the crisis. Write a letter to The Star, 3015 Sophia, Wayne, Michigan containing your opinion and views. We will print and send it on to the Conservation Department. We will try to stir up a lot of interest both through the Star and other papers throughout Michigan. The Conservation Department will soon be obligated to study the subject farther and if Michigan allows spearfishing, other states will follow. Then our fight will be over. Underwater spearfishing will become a national sport. »

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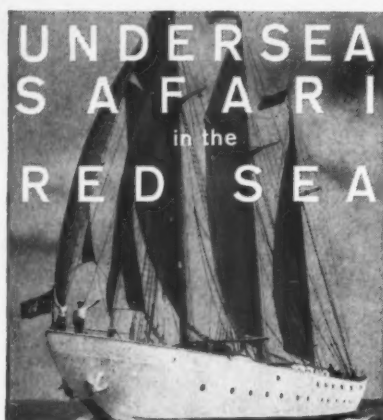
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## Florida . . . CORAL CAVE MEN OF TRESURE ISLAND

By John Stephan

"Winter is icumen in." We may add to our list of accomplishments the complete revision of our constitution. Also we would like to welcome three new members into our club.

These members are: Dr. Jochen Opitz, Dr. Hiroshi Takita, and Hans Florin. Dr. Opitz has dived in the Baltic Sea, in Swiss lakes, our own Great Lakes, and the Gulf of Mexico. The others have had diving experience in our Great Lakes. Dr. Opitz and Dr. Takita have made their internship here in the United States and Hans Florin has studied to be a minister at the Rochester Colgate Divinity School.

Together with these new members we went on a little underwater excursion at the Sunshine Skyway, a favorite spear-fishing ground in our area. The Sunshine Skyway is a bridge and causeway which is 15 miles long. Something else that we did was have a dollar day, or really four dollar days. On these days we went down and brought up sand dollars, a type of urchin and donated them to a nearby shell store. In closing I would like to say that we had a fine year of diving. »

## California . . . DAVEY'S BOYS

By Jack Lewis

The first week in May, Davey's Boys made their second safari to Guaymas. The first day that weather permitted, we headed up the coast. Upon rounding the first big point past San Carlos Bay, rough water seemed to be with us and we headed into the first protected bay that we came to. This was the luckiest break of the trip as this was the spot where we spent the most productive days of our skin diving careers. The second day out, Jack Hallenbeck, our club president, landed a 101½-lb. grouper. Along with Marv Cox's 55- and 40-pounders, Bill Bailey's 30- and 22-pounders, my own 67 pounder. Although our final day wasn't quite as impressive, it was a big day for me as I landed my biggest fish, a 92-lb. grouper. Several rays of various species were seen and some shot. No Mantas or large sharks were seen in the water. While we were there some Mexican fisherman brought in a 272-lb. Hammerhead shark. I'm not so sure that we shouldn't consider ourselves lucky not running into same. It's been about 7 months now and we are all getting the bug to go back. We are planning a trip right around Easter. Who knows, maybe we will be writing about bigger and better things after then. (I hope) . . . »

**GARY RUBOTTOM and JERRY  
HIERSCHE of the Oregon Skin Divers  
and the Oregon Amphibians with twin  
55-lb. Ling Cods speared in December at  
Puget Sound. Actual water temperature  
39 degrees, visibility about five feet. (No  
gloves on suits.)**

## Massachusetts . . . BOSTON "Y" SEA ROVERS

By Pete Olds

The Boston "Y" Sea-Rovers have been somewhat lax of late due to a re-organization program whereby we are now full-fledged associates of the Boston YMCA. We have had a most successful Summer and fall season. The Rovers were diving from spots from Maryland to Maine and one or two in Florida for several weeks during the winter months.

A very interesting day was had when a group of New York boys, consisting of George Lautner and George Vosberg came up from New York to try real lobstering.

After January 1st, the sea-rovers will be having evening meetings at the "Y". Any skin divers in the area are cordially invited to attend. Skin diving lessons are being given at the Boston YMCA under the auspices of Jim Cahill and Jim Quill, and graduates of this course are all welcome to join the Sea-Rovers Club. We are conducting educational and pertinent meetings on skin diving to all novices and those who are familiar with the sport. If interested, please contact, Pete Olds, Aquatic Director, Boston YMCA, Kenmore 6,7800, would like to hear from other clubs across the country. »

## Oregon . . . OREGON AMPHIBIANS

By Jerry Hiersche

In the last two months we have taken three trips to Puget Sound, which is about 180 miles from here. On every trip we have taken three or four fish from ten to twenty pounds, but on the last one I got a fifty-five pounder, in 80-feet of water.

Our meetings have been few and far between because of school, but we have been doing a lot of diving. We have ten club members, most of us are 16 and 17 but our youngest member is 12 years old, and is rapidly becoming a very good diver. We just ordered an underwater camera and hope to have some good pictures in the near future. »



MAINE . . .  
**COAST OF MAINE NEPTUNES, INC.**  
 By Don Lamont

On December 20, 1955, we became incorporated under the statutes of the State of Maine. The following members were the incorporators and will serve on the Board of Trustees: For three-year terms: Don Lamont, Dick Patenaude, Arthur Lutts; for two year terms: Norm Curtis, Rene Hamel, Bob Foley; for one year terms: Joe Christy, George Deshamais, Wilbur Rhodes.

A winter indoor swimming program is being worked out with the Portland YMCA, and we have every expectation that the excellent instruction given members last year in using SCUBA equipment will be carried forward.

The club has members in Vermont, New Hampshire, Connecticut, North Carolina, Florida, Michigan, and in Washington, D. C. Most of these members are of the military and will return to Maine at sometime in the future.

The 40-foot club boat, the NEPTUNE, owned and skippered by Rene Hamel is now being readied for extensive diving operations in the Isles of Shoals area. The Isles were once the headquarters of famed pirates Kidd and Blackbeard, and are rich in legend.

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CALIFORNIA . . .  
**LONG BEACH NEPTUNE NEWS**  
 By Dr. N. E. Mathison

It's great to be back in the Long Beach Neptune publicity department again. It gives me a chance to let all my good friends know what our club is doing. We are out to give a good account of ourselves in the local and national skin diving championships this year. Twenty members have signed up to faithfully follow training rules and be in tip top condition. Bob Manicki, our new president, is a top contender for a place on the team. Jack Smith just caught a ten pound lobster in local waters. Dr. Bob Washbon came down from Washington for a few days and got a nice mess of ocean rock scallops to take back with him. I just spent four weeks in fabulous Yucatan, Mexico taking underwater pictures and skin diving.

We need more good divers, girls too, and extend a welcome to all those interested in joining a real progressive club. Ted Peterson, our entertainment chairman has promised to have a good skin diving movie or an outstanding speaker for every monthly meeting. Drop me a card at 3515 E. First Street, Long Beach, California, for time and dates of our club "bull sessions."

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44—FEBRUARY—SKIN DIVER

## Michigan . . .

### BATTLE CREEK SUB NORMS

By Sherman Schott

The Battle Creek club has, after many unsuccessful attempts this summer, found the sunken "Novadoc." Joe Roen and Ken Williams braved fierce winds and waves to find the ship. The rest of us are now waiting for warmer and calmer weather to complete the exploration.

The club was very well pleased with the first major project to be undertaken. This was a float for the "Add Wagner" Homecoming parade. The float consisted of approximately 6,000 blue and white paper napkins and 200 feet of chicken wire, supporting the submarine, "Sub Normal". For unprofessionals it looked very well.

A recent weekend found Gordon Garms, Ken Williams and Dave Morse trying out their suits and gear under the ice. Everything went very well if only the problem of cold hands hadn't plagued them again. Their spirits weren't dampened as further diving through the ice is being planned.

## California . . .

### PESCADORES

By Jack Opperman

The Pescadores got a real lesson. In 54° water we tangled with the Kelpotomaniacs at Malibu for our first interclub meet, a three hour session. Although getting thoroughly trounced, we discovered that winter diving in suits (the first time many of us had worn them) is amazingly painless. We all had a great time and are now really hopped up for more competition. In fact, after the middle of January when sixteen of us finish making our full length wet suits, we will throw down the gauntlet and invite any club to challenge us to a meet.

Our club is fortunate in having two members, Ed Birkholtz and Ed Handler, who have good sized boats. At least once a month we have been taking weekend dives at Catalina.

Since we wrote last, our best catches have been an 80-lb. bat ray, a 13-lb. bug, a 5-ft. leopard shark, a 12-lb. calico, and a 4-lb. corbina.

The club is going to the tip of Lower California the last week in March, and will try to nail a few of the tackle-busting monsters we missed last year.

We are looking forward to a successful '56 and hope to become acquainted with many of you other clubs during the year.

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California . . .

## SALINAS MONSTER MANGLERS

By Carol Wood

A group of glubs in Salinas, Calif., have formed a skin diving club and we are anxious to contact other people in this region who are interested in underwater spearfishing, photography and exploration. One of our chief aims is to promote the idea that skin diving is a safe sport, provided all safety factors are observed. We have had a number of highly successful club dives and a very good time was had by the club members. Another function of the club was to obtain navigational maps of this area, these will be valuable in determining depths and the type of terrain for various regions of our coast.

The club is in contact with the local office of the Fish and Game Dept. and we have received their full cooperation.

Our club is open to both men and women and we invite inquiries from all interested persons. Write to: Salinas Monster Manglers, 1128 Jean Avenue, Salinas, California.

California . . .

## RIVERA BLUEFINS

By Roger Webb

During the past year we've had some very successful dives and a few of us have decided to form a club. We would like to take this opportunity to invite those who might be interested in becoming members of our club, to give us a call or drop us a line.

We're all looking forward to a very active year and we hope to have the pleasure of meeting some of the fine clubs here in the southland in competition as well as in social get-togethers.

Our mailing address is: 6138 Eglise Ave., Rivera, Calif. Rest assured that all mail will be answered. Or if you wish just give us a call at OXford 9-9737.

California . . .

## DOWNER ABGRABBERS

By Jim Turpin

Two divers from the club journeyed to Guaymas and Kino Bay in Mexico in June. Muddy water was found for the three days spent at Kino Bay but plenty of spiny lobsters were taken. The outboard motor didn't burn the Mexican gas too well so the boys didn't attempt a trip to Tiburon Island. Guaymas was fairly clear, no large fish were taken but plenty of the five to twenty pound class ended up on the table.

The club has been doing very good on bugs this season, the largest being an eleven pounder. Yours truly brought in a 75-lb. Bat Ray also.

Thanksgiving had most of us heading for Punta Penasco, Mexico, 641 miles south of Los Angeles. The highway is good and will get you there in fourteen hours. We all got together and bought enough color film for a travelogue of the trip to Penasco. Diving and skiing was the order of the day and everyone had a ball. We are always interested in new members. . anyone in the Downey area may call TOPaz 1-2468.

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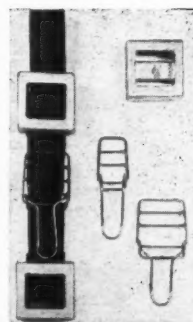
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Louisiana . . .

### ARK-LA-TEX DIVERS

By Robert F. Pool

Even land-locked Shreveport has had considerable activity during the past year in skin diving. The club organized last May and has grown to its present complement of 35 members, some coming as far away as 35 miles to attend meetings. Our meetings are held at the YMCA each Tuesday evening.

An extensive training program was inaugurated under the supervision of the club director Joe Coffield and all members are completing the course with flying colors. The summer saw several weekend excursions to The Narrows Lake in Arkansas as well as several to Daingerfield State Park in Texas.

The climax of the season was the club trip to Grand Isle on the Gulf of Mexico. Here we combined with the Dixie Divers of New Orleans for a diving jaunt into the Gulf. It was during this trip that one of the Dixie Divers caught a 33 1/2-lb. black bass.

Cold weather has not stopped the club activities. Many of the members have purchased rubber suits and almost every weekend finds members diving in nearby Lake Bisteneau. We have been responsible for ridding the lake of quite a few gar and members say that diving was never better than it is now.

Michigan . . .

### WAYNE DIVERS

By Jess Maxwell

Who says that skin diving is for people who live along the ocean? More divers are turning up in inland lakes than in the ocean it is believed. Proof of that statement is helped along by the organization of another skin diving club in the State of Michigan. The Wayne Star Newspaper, 3015 Sophia, Wayne, Michigan, has started the club which had 25 members come to the first meeting. Jim White, owner of White's Skin Divers Supply in Dexter and Richard Caley of Argus Cameras, both members of the Ann Arbor Amphibians, helped the club to get organized. Both divers brought excellent movies that they had shot themselves to spur the program on. Voit's movie "The Other End of the Line" was shown also. Interest was high and the club should be a success.

Not wasting any time to have another meeting, the club went to the Ann Arbor YMCA, under the invitation of Mr. White and Mr. Caley, and swam in the pool there with the Ann Arbor Amphibians. All members used the lung and were impressed with it. Looks like Mr. White will have some extra lung sales come next summer.

Any persons in the area are invited to join the club if interested and may do so by calling or writing The Star at the above address.



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# Divers' Bulletin Board

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**SKIN DIVERS AND DEALERS.** See us at the DETROIT SPORTS, BOAT & TRAVEL SHOW, INC. Michigan State Fairgrounds, March 3rd to 11th. **AQUA SPORT DIVERS,** 16015 E. Eight Mile Rd., E. Detroit, Michigan. Prescott 5-0274.

**DOUBLE CARTRIDGE CO: GUN** for sale. Price \$30.00. A big fish getter. Paul Hoss, 12905 So. Butler, Compton, Calif.

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**"SKIN DIVER" MATERIAL NEEDED COMPRESSED AIR STATIONS**—Due to the many requests from the readership this magazine is going to list all of the Compressed Air Stations in the nation as soon as they are gathered and compiled. This information must come from the stations and from the divers. We would like for you to send us a postcard, mention **COMPRESSED AIR** on the face, giving the name of the company or store, the address, the type of compressor, the hours they are open and the price charged for the various sized tanks. The list will be utilized by Scuba divers throughout the country and in some cases will enable them to more thoroughly plan their vacation and diving trips. Also it will be helpful in our office in answering the multitude of letters we receive regarding "Where can I get some air?" Write to us, we are waiting for your card. **Compressed Air, THE SKIN DIVER MAGAZINE**, P.O. Box 128, Lynwood, California.

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**VACATION AND TRAVEL**—Do you have a favorite underwater vacation spot. Early this year **SKIN DIVER** plans a "Vacation & TRAVEL" issue which will be devoted to this subject. To have a complete and thorough coverage of the best and most convenient locations we need proper directions, prices, pictures, fish that can be expected, other game, air stations, distances, etc. We can't all go to the far flung "Paradise" for divers but we would like to try your favorite this year. Tell your underwater fellowship about it here, in the pages of your magazine.

**DIVERS AND DIVING CLUBS:** Solve this year's air problem immediately by purchasing a tested Ingersol-Rand compressor, then liquidate your investment by selling refills. Perfect operating condition. \$285.00 F.O.B. Write or phone Hunter 5-8323, Strauss, 3723 Harrison, Brookfield, Illinois.

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48—FEBRUARY—SKIN DIVER

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**FOR SALE**—one Seal Life neoprene full suit with hood, used but once, no patches \$35. 1901-101 Hwy., Lomita, California.

**SALE**—Bel-Aqua suit and snorkel, Cressi fins and mask, floating knife, depth gauge, A-1 shape \$50.00. Don Crawford, Box 104, Blaine, Washington.

**AQUA-LUNG** Slightly used two stage regulator with Hope Page, neoprene hoses, 70 Cu. Ft. Bottle \$95.00. 1901-101 Hwy., Lomita, California.

**UNDERWATER LIGHT** with 200' wire 110 volts AC, DC \$75.00, lung \$20.00, air tanks filled, deep sea diver shoes \$12.00, Mark V helmets \$75.00, 32' tug for hire \$40.00 a day, Remsen, Sewaren, New Jersey.

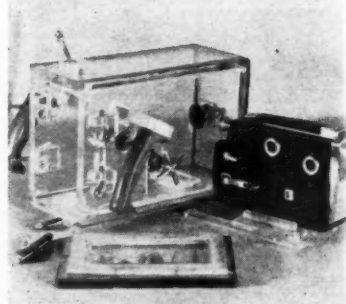
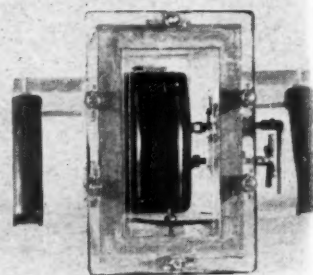
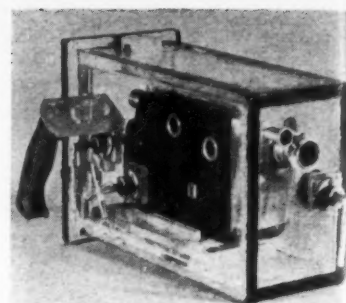
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**"ANYONE** knowing the whereabouts of John MacPherson (diver) formerly of Newport Beach and Las Vegas, please contact **THE SPEAR FISHERMAN CO.**, Box 388, Huntington Beach, California."

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For you skin divers who are thinking about a camera for underwater photography this coming year be sure to consider a K-100 made by Eastman Kodak. It is simple to build a case for and it will run 40 ft. on one winding. I made this case in about 20 working hours in 4 nights with only a hacksaw, drill, screwdriver, soldering iron and T square. The lens is not a wide angle but I hope to have one this summer for a trip to the Bahamas. The lens on it is a standard 25mm F1:9. The results except for the angle and photographer cannot be matched for any amount of money. The sharpness of detail and color of film taken with this camera are outstanding. I sincerely believe that the Kodak Ektar movie lenses are the finest in the world and recommend them to anyone.—**JEROLD H. WHITE.**

## The Compleat GOGGLER

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Wisconsin . . .

## MIDWEST AMPHIBIANS

By George F. Wilson

Sunday, November 13, the Midwest Amphibians worked with the conservation department in Racine County at Silver Lake. The object of this gathering was a survey of the fish in the lake. The results were somewhat disappointing. Although the water was clear, not many fish were seen. The fish that were seen were mostly in deeper water, although some were seen in the weeds in the shallow parts of the lake. There are many indications that the fish have been heading for deeper water. Some people claim this means a cold winter. If November and December are indications of the weather to come they are right.

During duck hunting season two hunters were drowned in Lake Onalaska. Their dog was found swimming near the swamped boat. It was three weeks before the club knew of the event. Due to complications it was seven weeks before we were able to dive for the bodies. Lake Onalaska is near La Cross, Wisconsin, and is formed by the Mississippi River being dammed. The lake is not very deep, and the bottom is covered with tree stumps. Attempts at dragging were unsuccessful.

Saturday, December 17 Ralph West, Fred Rodgers, Chuck Stanly, and Howard Gerard arrived in La Cross. A large gathering was out to greet them. The Sheriff had made all necessary arrangements and worked with the divers whenever and however he could. The hunters' parents were also on hand.

The ice was about fourteen inches thick, and when Ralph went under he could see no more than two inches. Howard Gerard, who just completed the SCUBA course, tended the lines on the surface. Howard did a very excellent job, and without his help no one would have been able to dive. A search pattern was made by letting ten feet of line through the hole in the ice, and then the diver would swim in a circle at the line's end. Circle were made in ten foot increments up to fifty feet.

Both Ralph West and Chuck Stanly became wedged between the ice and the bottom of the Lake during their dive, but both managed to work their way free. Visibility was about two feet on Sunday. The search patterns were continued until all the air was used up, but to no avail: the bodies were not found. Ralph West stated that he would never try anything like that again. Twice he doubled back on himself and caused slack in his line and once he got fouled up in the branches of a tree. It was necessary to keep tension on the line in order to keep it from being fouled. If the line had been cut in any way there would now be three bodies in the lake. No one can call these men fair weather divers.

Even though the bodies were not found much was learned on the trip, and the benefits of skin diving were shown to the public.

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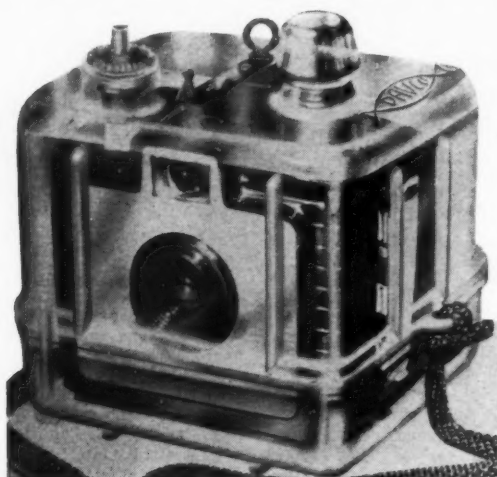
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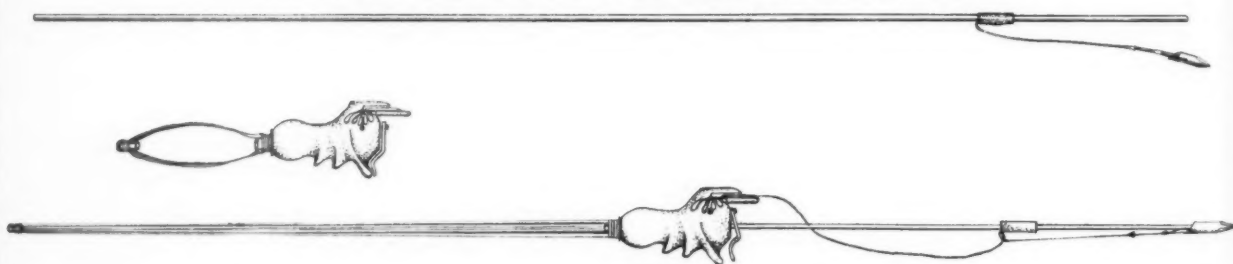
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# Olympics

**OLYMPIC CIRCLES** — The Olympic symbol, recognized throughout the world, consists of five different colored circles on a field of white. Representative of the five continents, these circles are linked together to denote the sporting friendship of the people of the earth, whatever their creed or country. The colors of the rings are Blue, Yellow, Black, Green, and Red — colors chosen because at least one of them appears in the flag of every nation in the world.

By **OWEN CHURCHILL**

Vice-President National Chapter U. S. Olympians — President  
Southern California Chapter United States Olympians

As most sports-minded people know, 1956 is an Olympic Year. The winter games will be held in Cortina, Italy, January 26th, 1956, and the summer games in Melbourne, Australia, November 22nd, 1956.

The United States Olympic Committee and the United States Olympians have built up a great reputation in the past Olympic Games, we must keep it so, it is something for all of the people of the United States to be proud of. We feel the cost of sending our Olympic Teams should be shared by all. It is a long way to Australia, and to send a well coached and complete team will run well over one million dollars.

Usually all the events, except the Winter Games, are held in the summer, but in Australia their summer weather comes during our winter, so the Olympic Games in 1956 will be held in November and December. The final Olympic tryouts in track and field events will be held in Los Angeles, June 29th and 30th, 1956. At the conclusion of these trials, the athletes will be chosen with alternates. When the time comes to send the teams to Australia, if for any reason the athlete chosen is not in top physical shape, the alternate may be called in. Some extra inspection and training will have to be done before the teams take off for Melbourne, which entails more expense than usual.

The competition in all events will be much keener in the Olympic Games of 1956. Countries that gave little thought to the idea of sports a few years ago, are now going for it in a big way — Russia is one good example. I had the pleasure and the honor of being appointed the Captain of the U. S. Olympic Team in 1952 at Helsinki, Finland, and of representing the United States on the International Jury for yachting.

For the first time Russia entered yachts and yachtsmen in all five events, they did very poorly, they explained they were a land country, they did not have the experience and the yachts, but look out—they were buying the best yachts, and their yachtsmen would give us plenty of competition in 1956! I see where they have competed in many regattas in Finland, and the Scandinavian countries, so I suspect they meant what they said. We all know how well they have done in all other sports.



I started competing in yachting for the United States in the 1928 Olympic Games in Amsterdam, Holland. The teams have grown, many more countries are entering athletes. The Olympic idea of good sportsmanship, friendly feeling, clean and fair competition has increased in the past years. I honestly feel the spirit of the Olympic Games is doing a great deal of good internationally, for the athletes and people of all countries. We all learn from one another, the athletes and teams from the various countries cannot help but improve and profit from a visit to another country. If they are impressed with what they see, and how life is lived on the other side of the fence, maybe they would like to live that way and tell their friends about it when they return home.

Many people think the Olympic Games are a competition of one nation against another, this is not true. Each nation is allowed so many athletes to compete in each event or one team to compete in events as football, or one yacht to compete in one class. It is the individual that is competing for the honor, not the nation. The competitor that wins is honored during the Olympic Games by having his or her nation's flag raised, and is presented a diploma and a gold, silver or bronze medal. There are no official points awarded in the Olympic Games.

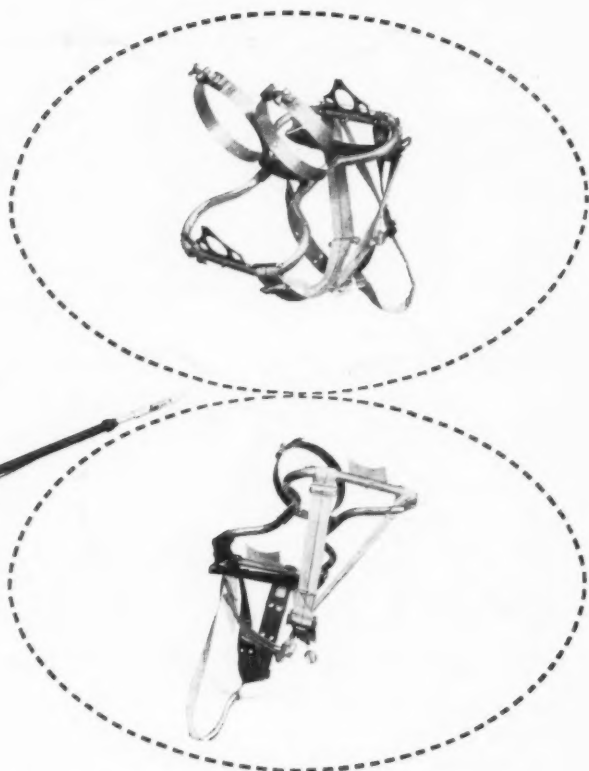
Some of the governments of the various nations stand the expense of sending their teams to the Olympic Games, but we in the United States feel it is a responsibility of the people, and should be kept clear of all politics.

It should be of interest to spearfishermen and skin divers that Spearfishing Competition has been recognized as a section of the A.A.U. We have held National Spearfishing meets in the United States and the first real International Meet was held in Europe in 1955. We have been working and hope to have Spearfishing a part of the Olympic Games in 1960 at Rome, Italy.

We must send the largest and finest Olympic team to represent the United States to the 1956 Olympics in Cortina, Italy and Melbourne, Australia. You can help make this possible, by sending your contribution to the U. S. Olympic Fund addressed, as follows: U. S. Olympians, Southern California Chapter, 3760 Venice Blvd., Los Angeles 34, California . . . or U. S. Olympic Fund, Biltmore Hotel, New York 17, New York. ➤



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